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GARDEN NEWS
SPRING–SUMMER 2016

New York Botanical Garden

President's Perspective

Dear Friends:

All great cities need anchor institutions—educational institutions, healthcare institutions, and cultural institutions. During the course of its 125-year history, The New York Botanical Garden has become an anchor—locally, regionally, nationally, and internationally. Our founders believed that New York needed a world-class center for botanical research and education. Over many generations of consistent development since 1891, that is what NYBG is today, committed to efforts to teach humankind about the critical importance of plants to an economically and ecologically sustainable future.

In serving widely varying audiences and constituencies, NYBG is essential to: the worldwide scientific and biodiversity communities concerned with the world's plants; visitors seeking a green education and respite from ordinary life; the international cultural community wanting to better understand the relationship of art and nature; local and regional schools and teachers looking for the best science education; and the well-being of the Bronx and its communities.

While we pause briefly to acknowledge this milestone year, we recognize that in this time of rapid global change, NYBG's role and responsibility have never been more critical and its mission more urgent. The Garden has been able to carry out all of its wide-ranging endeavors through the generous commitment of the thousands of individual donors, corporations, foundations, and government agencies supporting vital work here and around the world in plant research and conservation, horticulture, and education.

Thank you for visiting throughout the seasons, attending special events, volunteering, becoming a Member or Patron, and of course donating. Your continued support will help to ensure NYBG's promising future.

Gregory Long
Chief Executive Officer
The William C. Steere Sr. President

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1891–2016

The New York Botanical Garden is celebrating its 125th Anniversary in 2016. Since 1891 NYBG has been dedicated to advancing the ambitious and visionary goals of our founders. Looking forward, we remain committed to expanding the scope and influence of our leadership role in five principal areas of activity:

Saving the Plants of the World
Garden researchers generate original knowledge about biodiversity for the use of conservation organizations and public policymakers worldwide. Graduate programs train new botanists and conservationists to preserve the planet's plant life for generations to come.

Creating a Green Urban Oasis
The Garden has protected its 250-acre historic landscape since the 1890s. Through stewardship and continued development, it has long been an urban oasis that inspires large numbers of visitors to love and value nature.

Connecting Gardening to the Arts and Humanities
The Garden's multidisciplinary exhibitions and educational programs reveal the deep connections between plants and people, nature and culture. These initiatives illuminate the importance of gardens to human health and to the lives and work of influential artists and thinkers.

Teaching Science to City Kids
The Garden's educational programs improve scientific literacy among school teachers and children of all ages, increasing their awareness, knowledge, and understanding of the natural world.

Anchoring the Community
As a major employer in the Bronx, the Garden advances the local economy through its ongoing operations and capital projects. The Garden also promotes the well-being of Bronx residents through urban farming and community garden programs that advance the borough as the city's greenest.

Supporting Forest Conservation and Resilience in the Tropical Pacific

By Michael J. Balick, Ph.D., Vice President for Botanical Science and
Director & Philecology Curator, Institute of Economic Botany
and Gregory M. Plunkett, Ph.D., Director and Curator, Cullman Program for Molecular Systematics

A weekly community market on Tanna Island, Vanuatu, where fruits, vegetables, kava, and other economically important plants are sold; exterior view of a traditional cyclone house made of specific tree, grass, and vine species able to withstand high winds and driving rains.

Global weather patterns are changing everywhere—from New York City to some of the most remote parts of the world—creating catastrophic events that occur in greater number and frequency than was once considered "normal." NYBG is actively engaged in a collaborative international study to explore and conserve an important area of the world—the forests of Tafea Province in the island nation of Vanuatu in the southwestern Pacific. Botanically, this country is very poorly known. Most of its tropical island ecosystems have not been comprehensively studied, leaving enormous gaps in our knowledge of the plants and fungi, as well as their uses by local people. In an op-ed in *The New York Times* (March 12, 2016), Distinguished Counsellor to the Board of NYBG Edward O. Wilson, Ph.D., recently noted that much of current biodiversity loss is taking place "in tropical countries, and especially tropical forests on islands," making these areas a priority for conservation action. Our work in Vanuatu's Tafea Province addresses his call for increased action by focusing on *biocultural conservation*—preservation of both biological organisms and the cultural diversity and traditional knowledge of the people who depend on these habitats for sustenance and survival.

Exactly one year before Dr. Wilson's piece was published, we were working on Tanna, the most populous island in Tafea Province. In addition to collecting herbarium specimens and documenting the local flora, our group was establishing survey plots of tropical forests in eight locations to characterize their growth and dynamics during the time frame of our decade-long program, particularly in response to global climate change. We held community meetings that addressed the importance of biocultural diversity and its preservation, including the contemporary value of maintaining some of the traditional practices that once ensured a greater degree of self-reliance and sustainability. One example was the now rare (but formerly common) practice of building "cyclone houses" in a triangular design, with rafters inserted deeply into the ground. The entire structure is held together with vines, which maintain flexibility against the wind, rather than nails, which pull out. Other discussions involved the need to maintain knowledge of traditional food-preservation methods, such as traditional preparation of bananas that can ensure their edibility for at least six months.

Our message was put to the test on March 13–14, 2015, when we experienced Pam, a category-5 super-cyclone that made a direct hit across all of Tafea Province. We took cover, generously provided by the community, during an 18-hour period of sustained winds of 165 mph, with gusts as high as 200 mph. Emerging from our hiding place, we were astonished to see how much damage was done to homes, forests, and agricultural fields—in many areas complete devastation of the sort that appears in a war zone. Nearly a week later, after donating many of our supplies to the local communities, we left for New York. In November 2015 we returned to Tanna to resurvey the eight plots, providing an unprecedented opportunity to document exactly how these forests reacted to a catastrophic environmental event. We continue to monitor their growth and changes, and to work with the local communities to strengthen their conservation infrastructure. The vital knowledge and lessons obtained will help people on these islands, and elsewhere in the world, cope with more frequent extreme-weather events due to climate change. On Tanna, traditional cyclone houses are now being constructed across the entire island under the direction of the elders, and there is renewed respect for the importance of cultural knowledge as a tool for sustainability and resilience in a changing world—and a greater appreciation of the urgency of this biocultural conservation program that we are so pleased to be a part of.

NYBG's work in Vanuatu is supported by The Christensen Fund, the Critical Ecosystem Partnership Fund, and the National Geographic Society Committee for Research and Exploration.

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Ecological Design Guides Stewardship of NYBG Landscape

By Brian Sullivan, Vice President for Landscape, Gardens, and Outdoor Collections

The New York Botanical Garden's landscape, including its unique natural areas and special collections and gardens, has been developed and managed for well over a century. While philosophies and trends have varied, the Garden has always strived to reach the highest standards of horticultural excellence in developing and managing the landscape. From its inception, the Garden has served as a green urban oasis.

Aldo Leopold, the 20th-century observer of nature, often considered a pioneer in the field of ecology, inspires the idea of expanding our definition of community beyond people, to include plants, soil, water, birds, and insects. In his classic work, *A Sand County Almanac*, Leopold encourages us to think holistically about how we see the interdependent relationships of the organisms in a landscape, including ourselves. Leopold writes, "the land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land."

Today's approach to managing the Garden is continually evolving. As we expand our vision to include all the elements and organisms of our ecosystem, we refine stewardship practices for our unique collections and natural resources.

The Magnolia Collection, which dates back to the early days of the Garden, is one of the earliest flowering displays and is highly anticipated and enjoyed in spring. Visitors immerse themselves in the clouds of pink and white flowers. We envision restoring this beloved collection through a combination of curation and management practices that reflect the best horticulture practices. Curators will select later-blooming cultivars, for example hybrids of *Magnolia accuminata,* whose late-blooming yellow flowers open in time to avoid the chill of a Northeast spring. We will also continue to manage this collection by building healthy soils through mulching, organic turf care, compost tea, and improved drainage to create the optimal environment for magnolias to grow well.

If the Magnolia Collection exemplifies the Garden's curated collections, the South Forest, one of the most beautiful and underutilized parts of the landscape, speaks more to the Gardens' natural areas. Located south of the Thain Family Forest, the South Forest extends over 25 acres and is characterized by gentle parallel ridges, ephemeral streams, gorgeous rock formations, and grand old trees, both introduced cultivars and native species. This area offers visitors the best access to the Bronx River, whose placid flow in the South Forest is in sharp contrast to its rambunctious character above the Stone Mill. The South Forest, actively managed decades ago but less so recently, represents a unique hybrid between a cultivated landscape and a natural area. Intermittent patches of native sedges occur on undisturbed patches of land amid remnant collections and invasive plants. The South Forest is an excellent opportunity to demonstrate reforestation, an important tool used to mitigate greenhouse gas emissions, especially poignant considering this forested area is adjacent to the busy Pelham Parkway.

Somewhat less obvious, but no less important is a focus on the paving conditions and the drainage patterns throughout the landscape. This will allow us to protect two of our most valuable resources: soil and water. We can also create a more usable landscape for people and improve water quality. By installing permeable paving we can allow water to infiltrate the ground, both recharging groundwater and reducing stormwater flow. By improving flow and drainage patterns through our diverse topography, we can prevent flooding, which will lead to healthier soils and improved growing environments.

A common thread in these three diverse projects is function. Well-drained and biologically active soils support plants to grow well. Healthy forests clean the air and provide habitat for birds, insects, and mammals. Infrastructure and landscape patterns work together to move and infiltrate water in the best possible way. In addition to this is how we manage and develop this special landscape wisely and with the future in mind. Most important is how all these elements—plants, soils, water, animals, and people—function together in the spirit of Aldo Leopold's vision of a broad community to create an unparalleled green urban oasis.

The Bronx River flows placidly through NYBG's South Forest.

The Making of *Impressionism: American Gardens on Canvas*

By Karen Daubmann, Associate Vice President for Exhibitions and Public Engagement

Artist's rendering of the *Impressionism* exhibition in the Haupt Conservatory; Karl Thaxter (attributed), Childe Hassam painting on the porch of Celia Thaxter's home on Appledore Island, ca. 1886. Courtesy of Portsmouth Athenaeum.

The beautiful garden created in the Enid A. Haupt Conservatory for *Impressionism: American Gardens on Canvas* is a garden filled with inspiration. Our garden is an evocation of some of the renowned artist colonies in our region, showcasing the spirit of what made them alluring and what beckoned artists from near and far to paint them in changing light and season.

Artist colonies, especially those located along the coasts of Long Island, Connecticut, and Maine were an enormously influential resource for American Impressionists at the turn of the 20th century. They were a refuge for artists who needed to be immersed in a creative and supportive environment, to be in an enticing setting where their sole focus was to be artistically productive. Such gardens were planned and created to have engaging vistas and captivating plantings for months on end. The patrons of such colonies supported the artists by providing food and lodging in exchange for services, artwork, or a modest fee. In these gardens, artists such as William Merritt Chase, Childe Hassam, and John Singer Sargent were remarkably prolific. To see these works—the same garden represented by different artists, shown in varying light or changing season—emphasizes the notion that the artists were honing their style and growing their craft by intensely studying the intricacies of a landscape.

A home, like the one created in the center of the Conservatory's Seasonal Exhibition Galleries, was also central to an artist colony. Large porches were gathering places for the artists and hosts, a cool place to escape the heat of the day, shaded by fragrant roses while relaxing in rocking chairs. Parlors within were often places filled with vases of cut flowers and walls lined with all types of artwork, including framed photographs and canvases of varying sizes. Windows in each direction invited a variety of garden views to be explored.

Landscape features such as arbors, steps, stone walls, porches, and fences act as supports for colorful vines and backdrops for favorite perennials. As you would expect, roses, peonies, and hollyhocks are seen prominently in many of the paintings, not only because they were common plants of the period but also because they do well in our climate and provide vivid color in the landscape. Our artist colony features these plants and other charmers such as carnations, dahlias, geraniums, gladioli, lilies, and sweet peas.

Our garden, forced into bloom with the coaxing of intrepid gardeners in the Nolen Greenhouses, showcases your favorite "old-fashioned" garden plants brought into bloom simultaneously, wowing artists with impossibly tall blue delphinium and gigantic fragrant lilies. Experiencing an Impressionist garden in the Conservatory will no doubt bring out your own inner artist. The exhibition, along with a beautiful complementary display of more than 20 Impressionist paintings and sculptures in the LuEsther T. Mertz Library's Art Gallery, is on view from May 14 through September 11, 2016.

Leadership support provided by the LuEsther T. Mertz Charitable Trust, National Endowment for the Humanities: Exploring the Human Endeavor, Gillian and Robert Steel, National Endowment for the Arts, and New York State Council on the Arts with the support of Governor Andrew M. Cuomo and the New York State Legislature

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Exhibitions in the Enid A. Haupt Conservatory are made possible by the Estate of Enid A. Haupt. Exhibitions in the Mertz Library are made possible by the LuEsther T. Mertz Charitable Trust.

Any views, findings, conclusions, or recommendations expressed in this exhibition do not necessarily represent those of the National Endowment for the Humanities.

NYBG Curators Inspire Bronx Students to GEAR UP for Careers in Science

By Tai Montanarella, Marian S. Heiskell Associate Director of School and Out-of-School Programs

Garden scientists Fabián Michelangeli (top) and Daniel Atha (bottom) mentor local middle school students through the NYGEAR UP program.

While many middle school students chose to sleep in or travel during their winter vacation in February, 25 eighth graders from M.S. 280 and M.S. 118 in the Bronx mapped a keener course for themselves close to home. As participants in the New York Gaining Awareness and Readiness for Undergraduate Programs (NYGEAR UP), an initiative designed to prepare low-income students to enter and succeed in college, these students took advantage of the opportunity to enrich their academic studies and learn about career paths in science during the week-long Biodiversity Institute held at the GreenSchool in the Enid A. Haupt Conservatory.

Because the Garden is only within a few miles of their homes, students were surprised to find themselves transported each day to exotic biomes across the world. In both the Thain Family Forest and the Conservatory, they worked closely together exploring and finding the environmental variables and morphological characteristics affecting plants' ability to grow successfully within temperate and rain forests, deserts, and aquatic habitats. Though students had the chance to experience being scientists themselves as they conducted their field investigations, it was the first-hand exchanges they had with Garden scientists behind the strange plants and places they encountered throughout the week that truly inspired them.

Lawrence M. Kelly, Ph.D., Director of the Commodore Matthew C. Perry Graduate Studies Program; Daniel E. Atha, Conservation Program Manager; and Ina Vandebroek, Ph.D., and Fabián Michelangeli, Ph.D., Economic Botany and Systematic Botany Curators, all helped students not only contextualize the intimate connections among plant diversity, climate, and people by sharing information about their professional roles, but also encouraged them to find and pursue the disciplines and career paths that they are passionate about.

When asked how he knew what he wanted to do with his life, Dr. Michelangeli replied that he always wanted to do something that involved questions. He advised students to be curious and alert, congratulating them on their choice to come to the Garden during their winter break. "The fact that you are here is proof that you have interest." Sure enough, when asked whether they would choose to participate in another Science Institute at the Garden again during their free time, all responded, "Yes." One added, "It is a fun and unique way to spend time and it helped me become more aware and knowledgeable of different career motives."

Con Edison STEM Day Out update: Ecological monitoring of the Bronx River by New York City middle school students continues on the first Wednesday of each month thanks to the generous support of the Con Edison STEM Day Out initiative. Following a citizen science protocol, students observe the Thain Family Forest and Bronx River and retrieve leaf packs from the water to identify and count the organisms inside. The data they collect is applied to a biotic index that calculates the pollution levels found on a given day.

Though these students may not arrive at a conclusion about the water quality of the river in one day, they get to experience authentic science field investigations and contribute meaningful data to ongoing crowd-sourced research. Most importantly they come to think critically about the impact of human activity on the health of an ecosystem. As one student from I.S. 87 Q wrote, "The Bronx River is not being used as a garbage dump anymore. But it was used like that before, so it has after effects."

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East Gate Upgrades Improve Neighborhood Access

By Aaron Bouska, Vice President for Government and Community Relations

At the East Gate groundbreaking on November 20, 2015 (left to right): Gregory Long; Joseph Tazewell, Empire State Development Corporation NYC Regional Director; Jeremy O. Warneke, District Manager, Community Board 11; Feniosky Peña-Mora, Commissioner, New York City Department of Design and Construction; Albert D'Angelo, First Vice Chair, Community Board 11; Joseph A. Thompson, Representative for New York City Comptroller Scott M. Stringer; Mrs. Thomas J. Hubbard, NYBG Board Member; Todd Forrest, Arthur Ross Vice President for Horticulture and Living Collections; Maureen K. Chilton, NYBG Board Chairman; Ruben Diaz Jr., Bronx Borough President; Diane Katzin, NYBG Board Member; Rose Harvey, Commissioner, New York State Office of Parks, Recreation and Historic Preservation

For more than 50 years the East Gate, more commonly known to our local neighbors as the Waring Gate, has been one of three visitor entrances to NYBG—providing a pedestrian link between the Garden and the neighboring communities of Olinville, Bronx Park East and Bronxdale. The East Gate is accessed by a pedestrian bridge that spans from the eastern boundary of NYBG, over the Bronx River Parkway to the Waring Avenue entrance of Bronx Park East.

Originally built in the 1950s, the pedestrian bridge enters NYBG at one of the steepest points of the Garden's eastern boundary, leading to a pedestrian path with inclined slopes that limit accessibility for many visitors, especially those with physical disabilities.

This year NYBG will begin measures to rectify this issue through the construction of an improved and more accessible path configuration at the East Gate entrance. It is a part of the Garden's long-term master plan and addresses issues of visitor accessibility and environmental sustainability in this area known as the Green Zone. As a result of this construction the East Gate will be temporary closed until March 15, 2017.

Upon completion, an accessible pathway will lead from the Gate to a tram stop at the Ruth Rea Howell Family Garden. Plantings will blend new paths into the surrounding landscape while concealing the Operations yard and portions of the Green Materials Recycling Center. Signage will help orient visitors quickly and easily. This project will also improve the control and management of stormwater flow into the Bronx River, as well as aid restoration of native species and biodiversity along the Bronx River and its watershed.

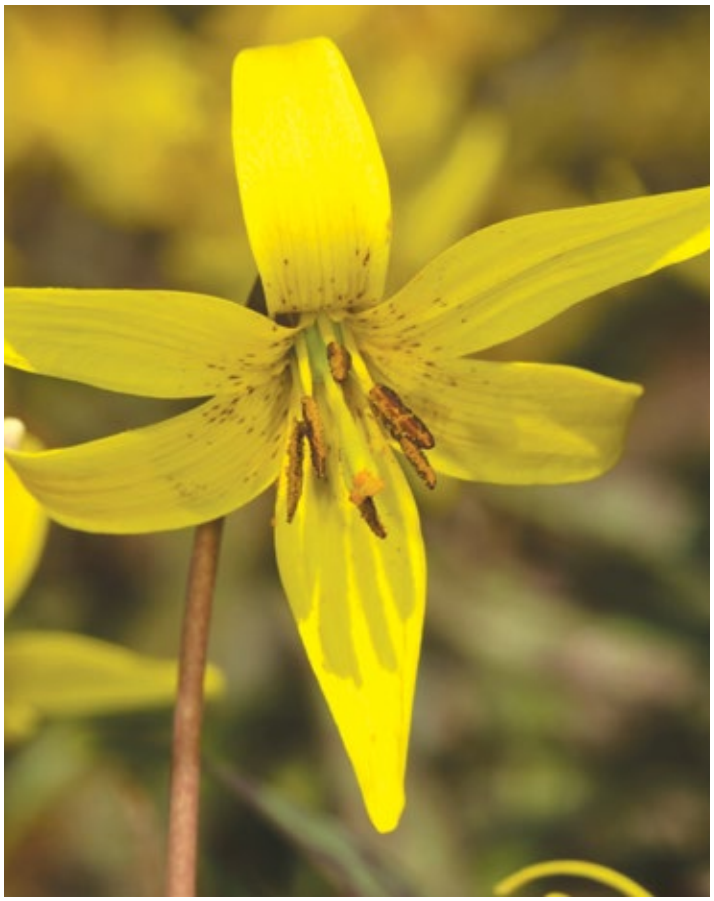
As an alternative mode of entrance to NYBG from the local #2 or #5 trains, visitors may access the Mosholu Gate via public transportation by using the Bx26 Bus from White Plains Rd/Allerton Avenue to Southern Blvd/NYBG Mosholu Gate entrance. In addition, the Conservatory Gate may be accessed from the Bx19 Bus from Southern Blvd/Pelham Parkway to Southern Blvd/NYBG Conservatory Gate entrance.

Because this may be an inconvenience to some of our neighborhood patrons and visitors, we have conducted extensive outreach to affected communities. Garden officials have met with the New York City Parks Department, local community boards, neighborhood groups, and elected officials to apprise them of this project. Signage has also been placed in Bronx Park East, advising visitors of this temporary closure.

We look forward welcoming our visitors and local community members with a reimagined, safer, and more accessible entrance in March 2017.

The Green Zone project is supported by Mr. and Mrs. Thomas J. Hubbard and the Harriet Ford Dickenson Foundation; Diane Katzin; Mr. and Mrs. Wilson Nolen; Royal Bank of Canada; The Honorable Andrew M. Cuomo, Governor of New York State, the New York State Empire State Development Corporation, and the New York State Office of Parks, Recreation and Historic Preservation; The Honorable Ruben Diaz Jr., Bronx Borough President; The Honorable José E. Serrano, United States Congress, 15th District, and the United States Environmental Protection Agency; The Mayor of New York City and the New York City Department of Cultural Affairs; and The Speaker of the New York City Council and the Bronx Delegation of the New York City Council.

Re-Establishing Native Wildflower Populations in the Thain Family Forest
By Jessica Arcate Schuler, Director of the Thain Family Forest



In the Thain Family Forest, trout-lily *(Erythronium americanum)* continues to thrive (left), and wood anemone (*Anemone quinquefolia*) is being restored (right).

There have been many changes to the spontaneous flora of the Garden since the late 19th century when botanists published the site's first formal inventory of the native and naturalized plants. Native wildflowers, including trout-lily, Canada mayflower, false Solomon's seal, hairy Solomon's seal, and white wood aster thrive while more than 150 native species of wildflowers, ferns, and fern-allies documented in the first inventory of the Garden are now extirpated. These are recent findings in efforts to document the historic and extant spontaneous flora of the Garden led by Garden scientist and Conservation Program Manager Daniel Atha.

We suspect a variety of factors led to the loss of native plants: over-collection of native wildflowers, trampling of soil by crowds of visitors, changes in soil chemistry, and increasing populations of invasive plants. Restoring the extirpated flora and expanding the populations of extant species in small numbers in the Thain Family Forest has been an objective for ongoing restoration projects. In May 2014, Forest staff planted flowering wood anemone grown from wild-collected seed of a local population to the small remnant, self-sterile colony of wood anemone in the Forest, in order to foster cross pollination and produce a seed-producing population. The restoration seeds, collected by Garden scientist Matthew Pace, Ph.D., in 2011, were sown and germinated in the Woody Plant Nursery in 2012, and the Forest staff cared for them until they bloomed for the first time in May 2014. This population of wood anemone is monitored to determine if it is producing seed and hopefully expand in years to come.

In addition to supporting extant plant species in small population numbers, Forest staff have included the following extirpated species in restoration projects from locally sourced seed and plants: marsh-marigold, Gray's sedge, eastern bottlebrush grass, cream avens, wild geranium, harlequin blueflag, great blue lobelia, Canadian anemone, Turk's-cap lily, wild bergamot, royal fern, and eastern marsh fern. Though it is still too early to confirm the establishment of these species, Forest staff are hopeful that they will form naturally regenerating populations.

Karen Washington: A Champion of Urban Agriculture
By Jenifer Willis, Marketing Coordinator for Education

Community Gardening Activist Karen Washington

Bronx community activist Karen Washington remembers when there were so many vacant lots in the Bronx, the borough looked like "a war zone." Over the years, some lots were turned into community gardens, primarily in an effort to beautify and reclaim neighborhoods devastated by New York's fiscal crisis of the 1970s. Dedicated volunteers who created these urban oases realized they could provide more than beauty. Community gardens became centers for community organization, expressions of cultural identity, and sources of fresh produce for a population in need of healthy food.

Since 1985 Karen has been on a mission to keep urban gardening alive in the Bronx. A NYBG Board Member and founding member of NYBG's Bronx Green-Up program, she has helped dozens of neighborhoods build their own gardens. "Urban agriculture is not going away," she insists. "It's only going to grow and expand."

In November 2015 Karen received a $10,000 grant to fortify urban agriculture in the Bronx. The NationSwell All-Star Grant is awarded to the applicant who receives the most votes from the public. The grant money will support urban gardens so they can continue to support the community, as they've done in the Bronx for the past 30 years.

Community gardens are not only safe havens for children and seniors, they are also a way for seniors to pass down their wisdom to new generations of gardeners. These are the same young gardeners who, over the past decade, have learned that food doesn't come from a grocery store; it comes from the earth. And then there is the alarming disparity between the food poverty in this country and the amount of food Americans throw away every year. "Americans waste so much food," she says. "It's inexcusable the fact that we have hunger and poverty."

> "Community gardens are the lungs of the city. They provide a place for people to congregate and relieve their stress. It's a place to celebrate culture and to grow food that's culturally appropriate." Karen Washington

Over the years, Karen has seen the right to maintain community gardens become a hotly contested political issue. Much work must be done to preserve these community gardens for future generations, and she is ready to protect the gardens, which recently have piqued the interest of land developers. After World War II, people began moving out of cities, seeking refuge in the beauty and open spaces of the suburbs. In fact, just 15 years ago, it is estimated that half the population of the United States lived in suburban areas, according to the U.S. Census Bureau. Now, that trend is reversing, and as a result, community gardens are in an even more precarious situation as land in cities becomes more valuable.

Every four years when garden leases are up for renewal, activists must be vigilant to ensure green spaces remain. Keeping elected officials aware of the value of community gardens and urban farms is of utmost importance, Karen says. She often invites policymakers to visit gardens to see how essential they are to the lives of New Yorkers.

City residents, Karen insists, need community gardens, not just to congregate and talk, but for health and nutrition. Food is the common denominator among all people. "No matter what you say, no matter your ethnicity, your gender, your economic status, how much education you have, at the end of the day, food is an equalizer," she notes. "You sit at the table, you break bread, and you enjoy food. Not once does that food jump up and ask how much money you make or where you live."

60th Anniversary of the Children's Gardening Program
30th Anniversary of the Ruth Rea Howell Family Garden
By Toby Adams, Gregory Long Director of the Edible Academy

Proud Gardencrafters show off their productive harvest in August 1958.

Beginning in 1956, a seed was sown, tended, harvested, saved, and replanted the following year. This annual tradition has continued for 60 years. Called the Gardencraft Program then and the Children's Gardening Program now, and despite moving to its current home in the Ruth Rea Howell Family Garden from a field that is now the Watson Education Building and a parking lot, the original principle has remained the same, "to give city youths the opportunity to get their fingers in the soil and to experience the joys of planting their own vegetable gardens and watching them grow to edible maturity".

The program was initiated by Thomas H. Everett, Curator of Education at the time, and Mrs. Samuel M. Lasker, representing the Ninth District of the Federated Garden Clubs of New York State. Twenty-five children, ages 8 to 16 years old, were invited to participate under the direction of Mrs. Lillian Weber. Gardening began in April and ended in August. Currently the Children's Gardening Program is offered to over 600 children over three seasons (spring, summer, and fall) and in two sections; Garden Crafters, for children ages 6 to 12, and Garden Sprouts, for children ages 3 to 5 along with their caregivers.

Each season, working in pairs under the guidance of a team of dedicated instructors the children plant and tend their own gardens. Their efforts yield buckets full of nearly two-dozen delicious crops as well as the less tangible, though equally obvious by the unavoidable and beaming smiles, joy, that nurturing a plant from a tiny seed to hefty harvest sows.

This year also marks the 30th anniversary of the Ruth Rea Howell Family Garden, created with a leadership grant from the Cleveland H. Dodge Foundation, Inc., which continues to support the Family Garden today. Serving as the new home to the Children's Gardening Program beginning in 1986, the Family Garden has since expanded its hands *dirty* garden-based education programs to also include gardening workshops for school groups, school gardening institutes for teachers, daily drop in gardening activities for families, and family dinners with world class chefs featuring our bushels of organic produce.

As with the ever growing slate of programs, the 1.5-acre site itself has filled with a variety of beloved features, including Munchy, a 30-foot-long topiary caterpillar, serving as our mascot and greeting every visitor at our gate; the Global Gardens, tended by a team of dedicated volunteers representing a wide diversity of backgrounds; the Lenape Garden, including an authentic wigwam and three sisters plantings; a meadow teeming with native plants that attracts beneficial insects and promotes a healthy edible garden; resident rabbits Darwin and Mendel, serving as garden ambassadors with their curious personalities and appetite for fresh and nutritious garden greens; and a hive of honeybees, who have been busy pollinating our crops for the past several seasons.

Each year the Ruth Rea Howell Family Garden opens its gates in spring and invites everyone to help plant, tend, and harvest a kaleidoscope of delicious crops. Our talented instructors and volunteers encourage green thumbs big and small to roll up their sleeves and join in. We hope you will make your way to our garden to see what we are growing—and dig in!

In the Howell Family Garden, children learn about organic gardening practices through lessons such as "Insects" and "Pollinator Pals."

Humanities Institute Symposium:
Alexander von Humboldt: The History, Science, and Poetry of Ecology
By Vanessa Bezemer Sellers, Humanities Research Program Coordinator

Friedrich Georg Weitsch, *Alexander von Humboldt*, 1806.
Alte Nationalgalerie, Berlin (Bildarchiv Preussischer Kulturbesitz)

On May 20 NYBG will host *Alexander von Humboldt: The History, Science, and Poetry of Ecology*, featuring three influential, interdisciplinary thinkers: author Andrea Wulf, ecologist Stephen Kellert, and poet Susan Stewart. Presented by the LuEsther T. Mertz Library's Humanities Institute, the Symposium is part of the Garden's 125th Anniversary celebration, underscoring the institution's vital role in worldwide plant research and nature conservation in the tradition of legendary German naturalist Alexander von Humboldt (1769–1859).

The Humboldt Symposium will focus on the multidisciplinary character of ecology, embracing history, science, as well as poetry. Today the biological sciences and humanities are separated into narrow fields of specialization. They find their origin, however, in a much broader conceived, unified approach to natural history, which is worthwhile to reconsider in order to find new, creative solutions for our ailing urban environments.

Andrea Wulf will introduce Humboldt through a discussion of her latest book, *The Invention of Nature: Alexander von Humboldt's New World* (Alfred A. Knopf, 2015). The book highlights Humboldt's radical new vision of nature; for the first time nature is seen as an interconnected whole, in which the alteration of one part necessarily means the alteration of all the others. This vision influenced some of the best American writing about nature and stimulated the development of modern environmental thought and the creation of the National Park system.

Stephen Kellert, Tweedy Ordway Professor Emeritus of Social Ecology, Yale School of Forestry & Environmental Studies, will emphasize the connections (and disconnections) between nature and modern humanity and its relation to our current environmental and societal crises, and will relate those perspectives to the work and understanding of Humboldt.

Susan Stewart, Avalon Foundation University Professor in the Humanities and Professor of English, Princeton University, will recite choice works. Her poems, based on the art of nature writing invented by Humboldt two centuries ago, continue to inspire young eco-poets today.

Immediately following a Q&A session, the audience is invited to the Mertz Library to view several of Humboldt's own herbarium specimens from the William and Lynda Steere Herbarium and some of his extraordinary literary works that form part of the Library Collections.

Friday, May 20, 10 a.m.–12:30 p.m.
Arthur and Janet Ross Lecture Hall

Learn more and register at nybg.org/adulted

The Symposium also coincides with the Science Open House, held this year from May 20 through May 22, the annual weekend of behind-the-scenes tours and demonstrations that offer the public a glimpse of the research facilities and activities of NYBG's science and conservation programs. On May 20 visitors can tour *A World of Plants* in the Haupt Conservatory with Garden scientists, hear first-hand about their scientific field research, and learn how plants have adapted to the vastly different ecosystems on Earth. On May 21 and 22, in addition to scientist-led Conservatory tours, visitors can attend Plant Collecting Demonstrations to see critical components of a scientist's tool kit used on expeditions around the world, learning how biodiversity is expertly documented in the field and preserved as museum collections for later study, and then take guided tours of the William and Lynda Steere Herbarium and the Pfizer Plant Research Laboratory. For details and tickets, visit nybg.org/science/science-open-house.php

The Andrew W. Mellon Foundation, as part of its initiative in architecture, urbanism, and the humanities, has renewed its leadership support of the Humanities Institute with a three-year grant to underwrite fellowships, research, public programs, and outreach.

125th Anniversary Science and Conservation Symposium:
Entwined: Plants, Exploration, and Our Future

By Brian M. Boom, Ph.D., Vice President for Conservation Strategy,
Director, NYBG Press and Science Outreach, and Bassett Maguire Curator of Botany

Eastern Blue-eyed Grass, *Sisyrinchium atlanticum* E. P. Bicknell (Iridaceae), collected in 1891 in the Bronx and now in the William and Lynda Steere Herbarium (left). Scientists in the field today (right) continue to explore and send specimens to this outstanding reference collection at the rate of 51,000 each year.

On September 23, NYBG's 125th Anniversary Science and Conservation Symposium, *Entwined*: *Plants, Exploration, and Our Future*, will explore the central role of exploration in understanding the myriad relationships of plants to human and ecosystem well-being, and the challenges and opportunities for sustaining those relationships into our future. Exploration has been at the core of the Garden's mission from the institution's founding, and is ever more urgently needed now in the face of global environmental changes. Exploration takes place at all scales and in all places—from surveys of giant trees in tropical rain forests to investigations of DNA sequences in the Garden's laboratories—revealing new knowledge with unanticipated impacts, enabling and empowering us to understand the present to better shape our future.

The Symposium will feature illustrated presentations by Garden scientists, selected to demonstrate a diversity of research questions, solutions, and locations of their explorations, from as close as New York City to as far-flung as the island nation of Vanuatu. A panel discussion will follow the presentations. What we learn from exploring botanical diversity is anchored by the specimens that are collected in the field, preserved, and then maintained in perpetuity in herbaria (botanical museums); after the Symposium, participants can view an exhibition featuring specimens from the William and Lynda Steere Herbarium on display in the Arthur and Janet Ross Gallery. The exhibition has been created with funding from the Institute of Museum and Library Services.

Friday, September 23, 10 a.m.–12 p.m.
Arthur and Janet Ross Lecture Hall

Learn more and register at Saving the Plants of the World:
nybg.org/125/125.php

Upcoming Member Gallery Talks

The Palms of Vietnam: A Doubling of Numbers
Friday, June 10; 11 a.m.–12 p.m.
Based on the most recent treatment of the palms of Vietnam done by French colonial botanists Gagnepain and Conrad in 1937, Garden scientist Dr. Andrew Henderson and his colleagues expected to find about 60 species of palms when they began their survey of Vietnam in 2007. In a stunning example of modern exploration and species discovery, however, a total of 25 palm genera and 105 species (33 of them new to science) have been found to occur there. Dr. Henderson discusses his 12 recent field expeditions to Vietnam and some of the possible reasons for the high level of new species discovery. Following the Talk is a visit to the William and Lynda Steere Herbarium to view some of the palm species newly discovered in Vietnam.

Stressed Out: Plant Responses to Global Climate Change
Friday, August 26; 11 a.m.–12 p.m.
Tropical forests are one of the planet's largest terrestrial carbon sinks, yet little is known about the effect of climate change on the health of tropical trees. Garden scientist Stephanie Schmiege, Ph.D. student, discusses the physiological response of trees to drought stress—what has been learned in the desert Southwest of the United States where it has been well studied, and her early work in the tropics of Vietnam. Following the Talk is a tour of the Garden's Pfizer Plant Research Laboratory to explore some of the physiological and anatomical techniques used to study and understand plant stress.

Evolution and the Tree of Life: Problem-Solving Through Time
Friday, October 14; 2–3 p.m.
As Charles Darwin famously recognized, the evolution of living things has been occurring for billions of years and is responsible for the marvelous diversity of life on Earth. Garden Scientists Drs. Dennis Wm. Stevenson, Barbara Ambrose, and Lawrence M. Kelly discuss evolution as a problem-solving process resulting in change over time and explain NYBG's modern research on understanding plant portions of the evolutionary Tree of Life (family tree of living things). Following the Talk is a tour of the Enid A. Haupt Conservatory to look at representative plants on the evolutionary tree and note some particular problem-solving that has occurred in Earth's different biomes.

Space for these talks is limited; reservations are required.
For reservations, please e-mail membership@nybg.org or call 718.817.8703.

World Flora Online Council Meeting Held at NYBG

World Flora Online will be the definitive online resource about Earth's known plants, including their conservation status.

During the week of April 25, the World Flora Online Council meeting was held at NYBG. Thirty botanical and information management specialists from around the world convened to discuss progress on this monumental project, which aims to provide a digital description and illustrations for each of the estimated 350,000 plant species on Earth.

An open access online resource of this nature was identified as the most important action the international botanical community could undertake to underpin worldwide conservation efforts. At the meeting, Council representatives from the U.S., England, Scotland, Germany, Azerbaijan, Mexico, Brazil, South Africa, India, and China discussed progress on the World Flora Online, and charted a course for the next six months of work on the project. On April 27, a public Symposium was held in Ross Hall. Speakers discussed their various project efforts to document the plants of the world, all of which contribute to this major initiative.

Support for World Flora Online has been provided by Google Inc. and the Alfred P. Sloan Foundation.

Masterworks from the Oak Spring Garden Library
By Joanna L. Groarke, Director of Public Engagement and Library Exhibitions Curator

Georg Dionysius Ehret (1708–70), *Magnolia grandiflora* (Southern Magnolia), ca. 1737

Pablo Picasso (1881–1973), *Pot of Flowers*, 1958

From October 8, 2016 through February 2017, The New York Botanical Garden will present an exhibition of works from the Oak Spring Garden Library in the Art Gallery of the LuEsther T. Mertz Library. This exhibition will showcase the masterworks of the botanical art collection of the late Rachel Lambert ("Bunny") Mellon, which she assembled in the library she founded on the property of her estate in Upperville, Virginia. Over the course of decades, Mrs. Mellon collected more than 10,000 volumes on botanical subjects, simultaneously pursuing her horticultural interests in the greenhouses and cutting garden complete with intricately pollarded fruit trees and manicured topiaries.

Curated by Dr. Lucia Tongiorgi Tomasi, one of the world's preeminent scholars of the Mellon collections and an expert on herbals and botanical art, the exhibition will include more than 40 works ranging from rare hand-colored engravings by French artist Jacques LeMoyne de Morgues (c. 1533–88) to watercolors on vellum by German artist Georg Dionysius Ehret (1708–70) to 20th-century works on paper and canvases by artists such as Andy Warhol (1928–87), Pablo Picasso (1881–1973), and Henri Rousseau (1844–1910). The exhibition will simultaneously reveal the depth and breadth of botanical art and celebrate Mrs. Mellon as one of the world's great collectors.

The exhibition, generously supported by a grant from the Oak Spring Garden Foundation, will be accompanied by comprehensive interpretative text that explores the history of the collection and the significance of specific works in the exhibition, complemented by a free cell phone audio tour offering commentary by Dr. Tomasi and experts from the Oak Spring Garden Library. A fully illustrated catalog will include an essay by Dr. Tomasi about the history and development of Mrs. Mellon's collection as well as a biographical essay by Tony Willis, Oak Spring Garden Librarian. Susan Fraser, Director of the LuEsther T. Mertz Library, will contribute an essay about select works in the exhibition. A series of public programs is also planned during the exhibition's run.

Coloring the LuEsther T. Mertz Library Collections
By Esther Jackson, Public Services Librarian, and
Samantha D'Acunto, Reference Librarian

In January 2016, the LuEsther T. Mertz Library was approached by the New York Academy of Medicine (NYAM) and asked to be involved in an event dubbed #ColorOurCollections. #ColorOurCollections, brainchild of NYAM, was an event that ran February 1–5, primarily on social media. Over 50 institutions participated, including the Biodiversity Heritage Library (BHL), which inspired the event idea during a Twitter exchange with NYAM.

Participating institutions were encouraged to share "coloring sheets" of items in their collections over social media. The Mertz Library went a step further, creating a coloring book with the help of our in-house Creative Services Department. One hundred copies were printed and offered to participants. These coloring books feature some of the many beautiful illustrations seen in our collections. Keen readers of *Flora Illustrata: Great Works from the LuEsther T. Mertz Library of The New York Botanical Garden* (Yale University Press, 2014), spotted some of the images featured in that work, as well as images from the library's seed and nursery catalog collection, much of which was recently digitized and made available through the Biodiversity Heritage Library.

During the two-day event, a variety of coloring materials and a welcoming space were provided for those who came to color. The first day, February 3, had a wonderful turn out with approximately 25 people in attendance, in spite of the rain. Most of the participants on this day were NYBG volunteers. Their enthusiasm in sharing the details for the event led to increased participation on the second day. On February 5, NYBG staff, Members, and Non-Member visitors colored the collection with zeal! Participants were eager to share their creations with the Library and took to social media, using the hashtag #ColorOurCollections to show off their work.

The images used for the coloring book enticed participants to inquire about their origins and the Library's Special Collections. During the two days there was an increased curiosity among staff and visitors alike to learn more about the botanical art in the collection. The event also sparked interest in future Library programming related to Special Collections. The Library staff is now working with the Education Department to develop additional coloring materials for future NYBG events. Overall #ColorOurCollections was a great success and brought new users to the Library!

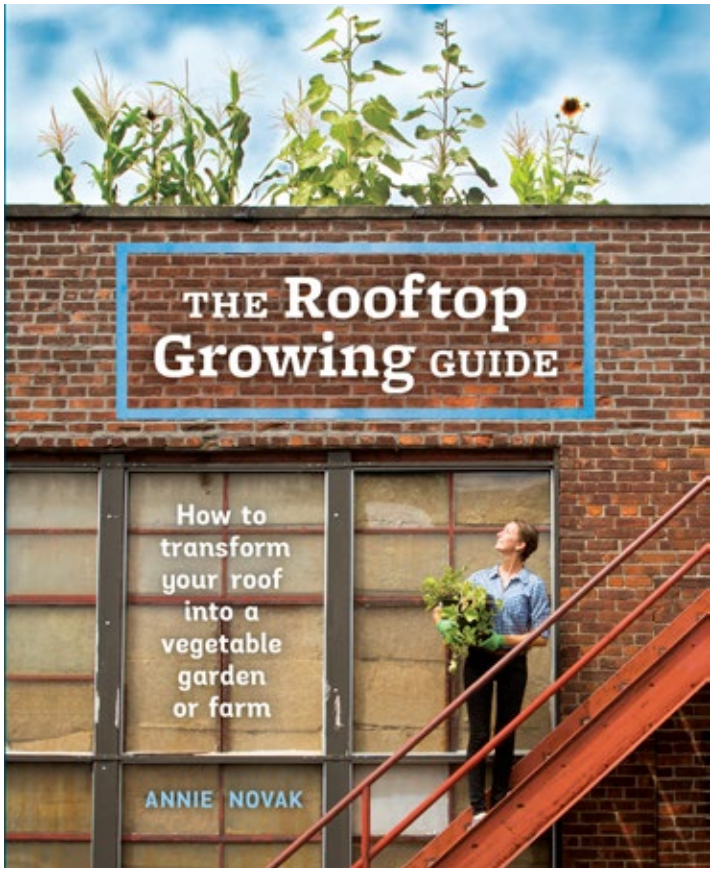
#ColorOurCollections participants used creative flair and supplies from the Mertz Library to imagine new color combinations for classic botanical artworks.

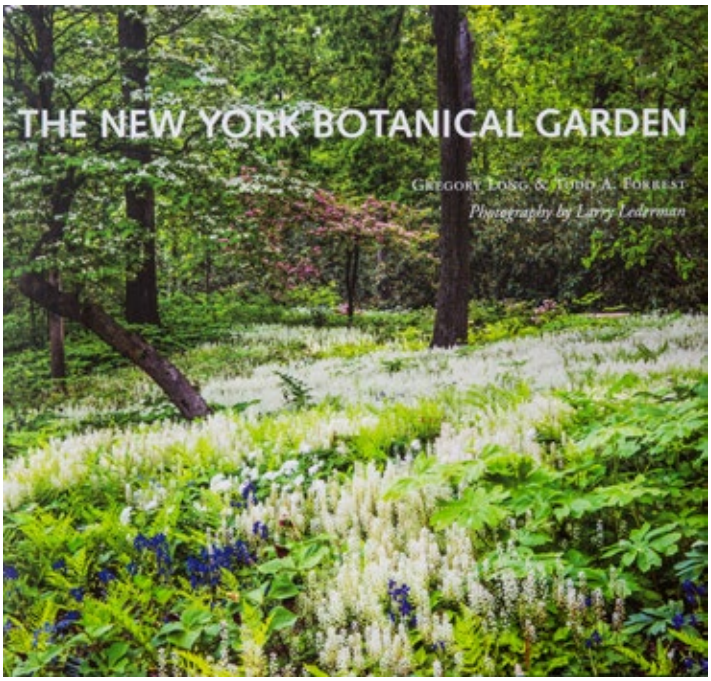
NYBG Shop Recommended Titles
By John Suskewich, Book Manager

At NYBG Shop it gives us great pleasure to write about two new gardening books, both of which celebrate and reinforce the remarkable vitality of this beautiful place that for 125 years has explored the idea of nature and the world of plants with Gotham and beyond.

Our colleague, Annie Novak, Manager of NYBG's Edible Academy, has dug deeply into her experience in the Ruth Rea Howell Family Garden, and at Eagle Street Rooftop Farm, to craft ***The Rooftop Growing Guide*** (Penguin Random House, 2016), a groundbreaking primer on how to turn your own masonry mesa into a vegetable garden, herb garden, potager, or farm.

This is very much a practical book, with insightful and specific information on creating, installing, and maintaining your rooftop back forty. Literally from the ground up (a cliché I loathe but must use here) she examines every imaginable detail, as well as many I never would have imagined, about site selection, growing media, pest control, crop selection, and safety regulations. Just as important, this is a book of to inspire, for as the author herself notes, she is a self-described "yes-person" and throughout the text you can feel her heart beat.





Like political empires, cultural institutions can rise and fall, but they can also rise again, as the recent history of The New York Botanical Garden demonstrates. It has clearly entered its Augustan phase and you can see that for yourself in another new book, ***The New York Botanical Garden, Revised and Updated Edition*** (Abrams, 2016). Co edited by two of the leaders of this renaissance, Gregory Long and Todd A. Forest, and with new photography by Larry Lederman, this publication details the many changes of the last 25 years.

Venerable gardens and plant collections have been restored, replanted, or otherwise reimagined; vital new installations, such as the Native Plant Garden, and some pretty thrilling special exhibitions, including the recent *FRIDA KAHLO: Art, Garden, Life*, have shown it thinking up news ways to broaden the scope of its mission. The history of botanical gardens, which began with the *hortus conclusus*, the enclosed garden, has been recalibrated by this different New York Botanical Garden, which in its resurgence has thrown its gates open to the world, diversifying its plantings, its programs, and its audience.

Please visit NYBG Shop in person or online at nybgshop.org to purchase these books and browse our entire selection of the finest new and classic titles.

Celebrating NYBG: 125 Years
Photographs by Larry Lederman in the Arthur and Janet Ross Gallery




Photographs by Larry Lederman, clockwise from top left: masses of tulips interplanted with pansies adorn the Pauline Gillespie Gossett Plant Trials Garden in spring; lilies and hydrangeas are a delightful combination; hardy, long-lived, and beautiful in spring, lilacs are cherished by northern gardeners; in the montane rain forests of the world, tree ferns provide a majestic canopy for their lower-growing companions.

As part of NYBG's 125th Anniversary celebration as a preeminent scientific and cultural institution as well as an urban oasis for New Yorkers and visitors from around the world, select images of the 250-acre National Historic Landmark landscape are on view in the Ross Gallery through July 31.

For more than 13 years, Larry Lederman, photographer and member of NYBG's Board of Advisors, has been observing and photographing the Garden in all seasons and at all times of day. The captivating new photographs on view here convey his unique artistic vision and the unparalleled natural beauty of NYBG at its most splendid. These images are a tribute to the Garden's history and a prologue to its exciting future.

Lederman's views of the magnificent gardens, diverse collections, and landmark Enid A. Haupt Conservatory feature many of the stunning vistas to be found across the Garden's 250 acres. His work captures the ethereal wonder of the trees, plants, and flowers throughout the year.

Lederman selected the color pigment prints in this show from among hundreds of his photographs included the new edition of *The New York Botanical Garden*, now available at NYBG Shop or online at nybgshop.org

Explainer Program Trains Future Science Leaders

By Lauren McKie, Director of Corporate Strategic Philanthropy

NYBG's Explainer Program is training Bronx high school students to become America's future science leaders.

The goal of NYBG's Explainer Program is to inspire and educate approximately 150 NYC teenagers annually—especially those in underserved neighborhoods—in the sciences so they may grow into America's science leaders.

The Explainer Program uniquely creates scientifically literate teenagers through hands-on learning and a kids-teaching-kids education model where program participants mentor the children and families who visit the Everett Children's Adventure Garden at NYBG. Creative solutions and collaborative problem-solving spark the participants' interest in STEM (Science, Technology, Engineering, and Math)-related subjects and education in general, inspiring youth to graduate high school.

Since high school is a time when teenagers decide whether to pursue a college degree, the Explainer Program is also critical to supporting the long-term success of its participants. The program seeks to help students matriculate into college and achieve a STEM-related degree by providing them with science classes and academic guidance not available in their schools.

Additionally, through the Garden's International Plant Science Center, Explainers gain exposure to important technology in the field and are introduced to topics in plant science. Working with Garden scientists, Explainers are provided with first-hand experience of what a career in a STEM-related field involves.

A pilot program offering citizen science activities to Program participants was launched throughout spring, summer, and fall 2015 with Advanced Explainers and the help of a Fordham University graduate student. The lessons learned and best practices will be used to implement the official start of this expanded curriculum this year.

In general, the citizen science instruction includes class and fieldwork in botany, environmental science, teaching methodology, including use of digital engagement, electronic microscopes, tablets, and data collection. Through citizen science activities, urban teenagers will have the opportunity to further their understanding of science, and its connection to larger conservation environmental issues, by conducting authentic fieldwork on the Garden grounds.

The Explainer Program is generously supported by American Honda Foundation, Clif Bar Family Foundation, Entergy Nuclear Northeast, Everett Foundation, Macy's, Alfiero & Lucia Palestroni Foundation, Inc., The Pinkerton Foundation, and The John Ben Snow Memorial Trust.

LuEsther T. Mertz Charitable Trust Supports Myriad NYBG Programs

The relationship between the LuEsther T. Mertz Charitable Trust and The New York Botanical Garden spans three decades and has been a central factor in the renaissance that has defined the Garden's modern era. The Mertz Trust's leadership was instrumental in the launch of the Campaign for the Garden, a major fundraising initiative that stretched from 1992 to 1999 and helped revolutionize the institution's strategy for growth. Ever since then, the Trust's support has only grown, and they have strengthened all aspects of the Garden's mission by helping to create vital endowments, overhaul the visitor experience and bolstering the LuEsther T. Mertz Library, the world's most comprehensive botanical library.

The Mertz Trust is building on its legacy by making an essential new commitment that will help solidify the Garden's foundation and secure its ability to grow moving forward. This gift, in support of the Mertz Institutional Development Fund, will solidify the Garden's foundation and secure its ability to grow moving forward.

The Mertz Institutional Development Fund is a unique operating gift that has, in years past, helped support a myriad of new initiatives as varied as *Poetry for Every Season*, the Geographic Information Systems Lab, and the growth of the Garden's online presence. Now, in line with NYBG's 125th Anniversary Program, the Fund will help the Garden assess and improve its Information Technology Operations.

NYBG has employed an expert consultant to assess the security, storage capacity, backup protocols, disaster recovery procedures, and staffing of its IT operations. This assessment revealed that the Garden's digital network technology, which must bear the burden of massive digitization projects from the William and Lynda Steere Herbarium and cutting-edge laboratory work, was in need of major upgrades. With the Mertz Trust's support, NYBG will be able to provide the necessary infrastructure improvements and security to continue its operations and to thrive as an international leader in science.

Nanotechnology Aids Energy Efficiency

By Mark Cupkovic, Vice President for Security and Operations

In spring 2015 The New York Botanical Garden received funding from the NYC Department of Energy Management, DCAS (DEM) through the ExCEL (Expense for Conservation and Efficiency Leadership) program for an energy efficiency installation at the NYBG's International Plant Science Center (IPSC).

Under the guidelines of the ExCEL program, PermaFrostNMR™ was added to the IPSC's centrifugal chillers. Permafrost is a nanotechnology that uses Nucleo Molecular Regenerative™ technology as its core agent, which is a one-time treatment with no down time required. It lasts for the remaining life of any system in which it is installed. The direct benefits of PermaFrost are improved cooling efficiency and increased capacity, both of which result in lower overall costs to operate a system and extended equipment life.

PermaFrost, is a liquid oil additive that travels with the refrigeration oil and smooths out the worn laminar boundary (inside edge of the pipe lining) to reduce friction and increase thermal efficiencies. After the one-month curing process, the post-installation electrical and thermal data were compared to the baseline data and revealed an 18.2% reduction in energy demand with a "pay-back" period of less than four years. As a result of these energy reduction readings, DEM provided additional funding for this installation in the Pfizer Plant Research Laboratory chillers in June 2015. DEM will provide funding in this year to treat every chiller system throughout the Garden.

NYBG, with support from DEM/DCAS, continues to be a leader in state-of-the-art energy conservation initiatives. Current projects include new condensing boiler systems for the Operations compound, new LED exterior lighting Garden-wide, and many other energy reduction programs.

Board Welcomes New Members

John W. Bernstein joined the Ford Foundation as Vice President, Chief Operating Officer and Treasurer in 2015. He oversees all areas of operations and finance globally, including directing all aspects of the foundation's financial operations, information technology, program services, information management, facilities management, and all related capital projects.

Previously, John served as the founding President and Chief Financial Officer of the Leon Levy Foundation. As its first president, he oversaw its creation in 2004 and established financial planning, analysis, and internal control processes, working closely with trustees to set and review goals for all areas of the foundation's philanthropy and administration, including its financial management and grant making.

John spent 13 years at The New York Botanical Garden as its Vice President for Finance and then as Senior Vice President for Institutional Development at NYBG. Before the Garden, he worked in systems analysis and design at the New York Public Library. John holds an MBA from the Wharton School at the University of Pennsylvania, is the longtime President of the Ping Chong+Company theater group, and serves as President of the Foundation Financial Officers Group.

Susan K. Matelich, an avid gardener, has been affiliated with The New York Botanical Garden since 1998. She and her husband, George, have been great supporters of the Garden's horticultural endeavors, including the expansion and endowment of the Matelich Anniversary Peony Collection.

Susan is a philanthropist and devoted volunteer at many organizations. She is an active crew-member and Treasurer of her local Volunteer Ambulance Corps, and she holds New York State, National Registry EMT and Wilderness EMT certifications. Susan and her husband are also dedicated to aiding first-generation college and graduate students, and have established undergraduate scholarships at the University of Puget Sound and Vanderbilt University, as well as an important fund for fellowships at the Stanford Graduate School of Business. Since 2008 Susan has served on the board of the American Prairie Reserve, a privately funded organization working to build America's largest grassland public park.

Born in Alberta, Canada, Susan moved to New York and earned a B.S. in Marketing, cum laude, from New York University's Stern School of Business, and enjoyed a successful 15-year career in modeling. Susan and George currently reside in Larchmont, New York, when they are not fly-fishing with their three adult children in Montana.

Malcolm C. Nolen is a Managing Director of Signal Equity Partners, an investment partnership focused on communications and media. Malcolm specializes in analyzing the marketing and sales capabilities of investment opportunities and, on an on-going basis, the firm's portfolio companies.

Before joining Signal, Mr. Nolen was a brand manager at American Home Products in the over-the-counter drug division. Prior to that, he oversaw securities processing automation and IT product development at The Bank of New York.

Malcolm has served as an advisor to the Garden's Investment Committee. He currently serves as a board member of ABB Holdco, Inc., Infotrieve, Inc., and Codigo. He is also the Vice Chairman of the Board of The Noguchi Museum. He resides in Brooklyn with his wife and two children, and received a B.A. from Yale University and an MBA from Columbia Business School.

NYBG Gold Medal Awarded to Shelby White

Shelby White, who received the NYBG Gold Medal on November 19, 2015, with Thomas E. Lovejoy, Ph.D., 2014 recipient

The Gold Medal, the highest honor that can be conferred by the Garden, is awarded periodically to recognize those individuals who have made remarkable contributions to botany, horticulture, or science education, or have shown extraordinary dedication to the Garden and its mission. Inspired by the seal of The New York Botanical Garden, the Gold Medal is gold-plated silver and was created by Tiffany & Company. Tiffany's relationship with the Garden dates back to 1895, when the company was one of the Garden's first benefactors.

The Garden was proud to present this award at the Annual Meetings of the Board and Corporation on November 19, 2015 to Shelby White, a great friend of NYBG. She joined the Board in 1989, and now she serves as Vice Chairman and is also a long-serving member of the Executive Committee.

Shelby and her late husband, Leon Levy, were named Benefactors in Perpetuity in the year 2000. Following Leon's death in 2003, Shelby became a Trustee of the Leon Levy Foundation. The Foundation's generosity toward the Garden has been remarkable and has been responsible for essential improvements to the landscape and the visitor experience.

Outside of her role with the Garden, Shelby has written on financial matters, philanthropy, and art collecting. She has taught seminar courses on philanthropy at New York University and museum studies at City College of New York. Shelby has been listed as one of the country's top philanthropists in Business Week's Annual Review of Top Givers, and she has appeared on The Chronicle of Philanthropy's list of America's most generous givers.

Shelby also serves on the boards of The Metropolitan Museum of Art, The Institute for Advanced Study, New York University, Bard Graduate Center, and The Writers Room. She is President of the American Friends of the Israel Antiquities Authority, serves as Chairman of the Shelby White and Leon Levy Program for Archaeological Publications at Harvard University, and is the Founder of the Institute for the Study of the Ancient World at NYU.

Shelby's dedication to important gardens and green spaces for the good of the public is far reaching beyond her dedication to NYBG. She is a major benefactor to the Brooklyn Botanic Garden, the Prospect Park Alliance, and the Westchester Land Trust. In addition, Shelby spearheaded the creation of the Leon Levy Native Plant Preserve—a 25-acre preserve located on the Bahamian island of Eleuthera.

At The New York Botanical Garden, her generosity and leadership, and that of Leon Levy, have been instrumental in dramatically enhancing the overall NYBG experience, including the creation of the Rodney White Country Garden, the Ladies' Border, and the Shelby White and Leon Levy Reading Room in the LuEsther T. Mertz Library. Most recently, the new Native Plant Garden is a masterpiece of modern landscape design and horticulture, and the Leon Levy Visitor Center now welcomes more than a million visitors each year. Both stand as two of the most significant improvements that have been made to the Garden's National Historic Landmark landscape.

Shelby joins Enid A. Haupt as the only other friend who has been recognized with a Gold Medal for significant contributions toward horticulture.

Native Plant Garden, a gift of the Leon Levy Foundation in 2013.

Perennial Society Profile

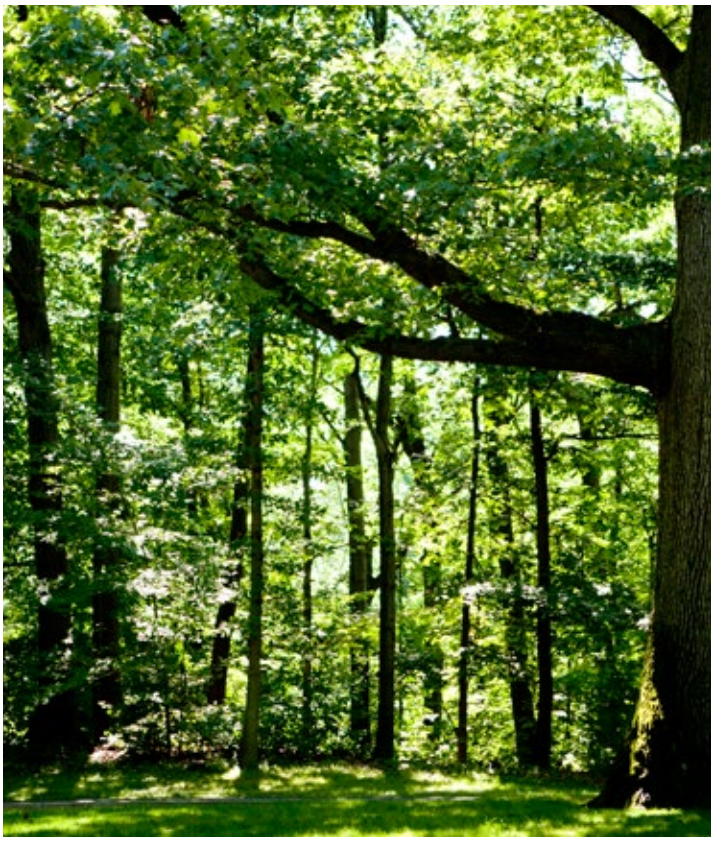
For Barbara Argy and her late husband, Donald, becoming Garden Members just made sense. “We found ourselves continually drawn to the exquisite surroundings, which provided us both with an aura of peace and serenity. The exhibitions are incredible, and the staff is extremely friendly.”

When her husband became ill, they continued to visit the Garden. “It was an easy place to bring Donald, and it served as a healing space for us both. It is a venue that can be enjoyed by everyone, regardless of their physical limitations.” Shortly after Barbara became a widow, she joined the Perennial Society. “I decided that I wanted to do what I could to ensure that the Garden will continue to grow and be there for people who need a comforting spot to which to retreat for generations to come.”

Barbara has taken full advantage of her Perennial Society membership and attends the numerous events each year. “I enjoy having my social calendar full of visits to the Garden, and my family and friends are always thrilled to join me. As a widow, I especially appreciate having the opportunity to meet like-minded people while sharing one of my favorite places with others who can appreciate this magnificent treasure.”

To learn more about how you can support the future of the Garden, please contact the Office of Planned Giving at 718.817.8545, e-mail plannedgiving@nybg.org, or visit nybgplannedgiving.org.

Founders Award Dinner Honors Business Leaders



The New York Botanical Garden’s Founders Award Dinner brings together leading members of the business community to share their support of the Garden in its global work to advance plant conservation and biodiversity.

The Thirty-Fifth Annual Founders Award Dinner is taking place on Wednesday, May 11. We are proud to honor Robert K. Steel, CEO of Perella Weinberg Partners and former NYC Deputy Mayor for Economic Development, and Gillian V. Steel, NYBG Board Member. We are also honoring E.W. Howell Construction Group. The Steels have done so much for New York City, the Garden, and the business world in general, and E.W. Howell has provided outstanding infrastructure work at NYBG that has improved its stature and visibility throughout the world. E.W. Howell, like the Garden, celebrates its 125th Anniversary this year.

Please join NYBG Board Members and Emcees Thomas E. Lovejoy, Ph.D., biodiversity and climate change expert, and Sigourney Weaver, actor and conservationist. Your presence at the Founders Award Dinner raises funds for the Garden’s Science and Conservation programs and celebrates the corporate and civic partnerships dedicated to this mission.

For more information and tickets, please call 718.817.8850.

Recent Grants Support NYBG's Wide-Ranging Work

The New York Botanical Garden has recently been awarded several very important grants to support work in science and education. These funds will help NYBG serve the educational needs of its local community, as well as pursue research and conservation projects in its state-of-the-art laboratory and in the field at sites throughout New York State and New England.

- NYBG has received a two-year commitment of $750,000 from the **William Randolph Hearst Foundation** to help underwrite the Design Development Costs for the redevelopment of the Everett Children's Adventure Garden. This project, which has received major capital support from Mayor Bill de Blasio and the New York City Council, will significantly improve exhibitions, classroom space, and other infrastructure within the 12-acre Children's Adventure Garden. The highly experienced team collaborating on this project includes exhibition designer Metcalfe Architecture and Design (MAD); landscape architect Towers Golde; architect Berg and Forster Architects, PLLC; and Mechanical/Electrical Engineer JMV Consulting Engineering P.C.

- The **Ambrose Monell Foundation**, a longtime funder of NYBG, has awarded a grant of $250,000—$100,000 of which will support the Fund for the Garden, which provides the flexible funding that is instrumental to the Garden's financial and operational stability, enabling the institution to balance its budget for 27 consecutive years. The Monell Foundation also renewed and increased its support of the Plant Genomics Program, with a grant of $150,000. The Plant Genomics Program is a leader in the field by melding NYBG's traditional strengths in collections, systematics, evolutionary biology, and morphology with the most cutting-edge genomics and molecular methodologies.

- The **Cleveland H. Dodge Foundation**, a steadfast supporter of the Ruth Rea Howell Family Garden, has made a commitment of $200,000 to support critical upgrades in the Family Garden during the Edible Academy development project. This generous gift has been made in memory of Robert Garrett, a beloved friend of the Garden, who served as a dedicated Member of the Board of Trustees for 27 years. He was also an officer of the Cleveland H. Dodge Foundation, and was a passionate advocate on behalf of the Botanical Garden.

- The **Acacia Conservation Fund** renewed its $100,000 grant in support of the International Plant Science Center for NYBG's work in furthering the understanding of the evolution, distribution, and uses of plant diversity and applying this knowledge to environmental conservation and sustainable resource management around the world.

- A two-year grant from the **Sarah K. de Coizart Article TENTH Perpetual Charitable Trust** supports a new project to promote the conservation of ash trees in New York and New England, which are under increasing threat from an invasive beetle, the Emerald Ash Borer. Daniel Atha, Conservation Program Manager; Brian M. Boom, Ph.D., Vice President for Conservation Strategy, Director, NYBG Press and Science Outreach, and Bassett Maguire Curator of Botany; and Gregory M. Plunkett, Ph.D., Director and Curator of the Cullman Program for Molecular Systematics, will work with partners throughout the region to provide baseline research on ash diversity, present results to the scientific and conservation communities, and train citizen scientists in ash identification and seed collection, efforts critical to conserving ash and protecting them from this beetle.

- NYBG was recently awarded a highly competitive $50,000 grant from new corporate donor **American Honda Foundation**. With this funding to support the Explainer Program, NYBG will offer an expanded curriculum to high school student Explainers, which for the first time this year, includes Citizen Science activities. Participants from the Bronx and throughout New York City will now have the opportunity to experience hands-on data collecting and authentic fieldwork on the Garden grounds. This program will not only inspire teenagers to take a greater interest in science and other STEM-related subjects, but also help NYBG scientists answer real research questions on major environmental issues such as climate change.

- NYBG Board Members **Anne and Tom Hubbard** have been important supporters of the work of Robert F.C. Naczi, Ph.D., Arthur J. Cronquist Curator of North American Botany, for many years. They recently made an additional gift to help expedite the revision of the important Gleason and Cronquist's *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*, an enormous project central to our understanding of North American botany.

Winter Wonderland Ball

The annual Winter Wonderland Ball at The New York Botanical Garden was held on December 11, 2015. The evening's Chairmen hosted over 450 of their guests at the premier holiday party of the season. The Ball, which raises operating funds for NYBG's world-renowned Children's Education Program, takes place in the magnificent Enid A. Haupt Conservatory, the Botanical Garden's landmark crystal palace, which is filled with an internationally acclaimed display of model trains winding through a sprawling landscape of historic New York City. Each year since 1999, the Ball has been known as one of the "Best Parties of the Year." The Winter Wonderland Ball is an extremely high-profile and visible event, and it garners major publicity in many of the major fashion and society magazines.

The dazzling setting of the Winter Wonderland Ball in all its festive splendor

Winter Wonderland Ball Leadership

The Orchid Dinner

The New York Botanical Garden's annual Orchid Dinner took place at The Plaza on February 23, 2016. A harbinger of spring, The Orchid Dinner is one of the most anticipated and beautiful events of the New York late-winter season. This high-profile event showcases the most exquisite display of orchid centerpieces imaginable, all created and donated by leading designers from the worlds of fashion, interior design, landscape design, floral design, and architecture. Proceeds support the development of the Garden's orchid research collection. In addition to maintaining the highest horticultural standards of orchid conservation, the Garden is the site of in-depth research on the orchid's evolution and genetic structure, and this research provides data that is essential for the identification of natural orchid habitats most in need of conservation.

Louise Hirschfeld Cullman and Lewis Cullman

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In 2016 we celebrate NYBG's 125th Anniversary and its role as an oasis in this busy metropolis since its founding in 1891, and look forward to the Garden's continued leadership as a dynamic New York City cultural institution.

A National Historic Landmark, this 250-acre site's verdant landscape supports over one million living plants in extensive collections. Each year more than one million visitors enjoy the Garden not only for its remarkable diversity of tropical, temperate, and desert flora, but also for programming that ranges from renowned exhibitions in the Haupt Conservatory to festivals on Daffodil Hill.

The Garden is also a major educational institution. More than 300,000 people annually—among them Bronx families, schoolchildren, and teachers—learn about plant science, ecology, and healthful eating through NYBG's hands-on, curriculum-based programming. Nearly 90,000 of those visitors are children from underserved neighboring communities, while more than 3,000 are teachers from New York City's public school system participating in professional development programs that train them to teach science courses at all grade levels.

NYBG operates one of the world's largest plant research and conservation programs, with nearly 200 staff members—including 80 Ph.D. scientists—working in the Garden's state-of-the-art molecular labs as well as in the field, where they lead programs in 49 countries.

Learn more about NYBG's anniversary at nybg.org/125

NYCulture The New York Botanical Garden is located on property owned in full by the City of New York, and its operation is made possible in part by public funds provided through the New York City Department of Cultural Affairs. A portion of the Garden's general operating funds is provided by The New York City Council and The New York State Office of Parks, Recreation and Historic Preservation. The Bronx Borough President and Bronx elected representatives in the City Council and State Legislature provide leadership funding.

Exhibitions in the Enid A. Haupt Conservatory are made possible by the Estate of Enid A. Haupt.

Exhibitions in the LuEsther T. Mertz Library are made possible by the LuEsther T. Mertz Charitable Trust.

Exhibitions in the Arthur and Janet Ross Gallery are made possible by the Arthur and Janet Ross Fund.

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