



2017 Annual Report

 MISSOURI BOTANICAL GARDEN



Writers/Editors: Kristine Gruver, Andrea Androuais

Designer: Andrea Androuais

Cover photo by Cassidy Moody

Photography: Kent Burgess, Claire Cohen, Madylyn Gordon, Elizabeth Harris, Thomas Incrocci, Kevin Kersting, Jean McCormack, Kat Niehaus, Mary Lou Olson, Bethany Ottens, Aunnalaray Park, Mike Saxton, Patrice Antilahimena, Suzann Gille, Darla Preiss, Kathy Melton. Sprouting Science and Teen Network photos courtesy of MBG Education.

Climatron® is a registered servicemark of the Missouri Botanical Garden.

The Missouri Botanical Garden is an Equal Opportunity Employer.

© 2018 Missouri Botanical Garden

“To **discover and share**
knowledge about plants and
their environment in order to
preserve and enrich life”

—mission of the Missouri Botanical Garden



from the president



When Henry Shaw established the Garden more than 150 years ago, he laid the foundation for the global leadership of the Missouri Botanical Garden today. To discover and share knowledge about plants—that is our mission. Plant diversity, the world’s greatest renewable natural resource, is being lost at an alarming rate, and we must act with the greatest urgency to document and conserve it. Today, our commitment to this challenge is more important than ever. We are proud to accept the responsibility to be a leader, mentor, advocate, and practitioner of environmental protection at home and throughout the world.

Our scientists and horticulturists work tirelessly to make plant discoveries and advance our knowledge of the environment. Each year, Garden scientists describe more than 10% of all new plant species discovered around the globe—a rate of discovery higher than any other organization on the planet.

At the same time, we welcomed more than one million visitors at the Garden, the Sophia M. Sachs Butterfly House, and Shaw Nature Reserve in 2017. Special events, such as our summer exhibit *Garden of Glass: The Art of Craig Mitchell Smith*, are paired with beautiful and diverse plant displays. These experiences make our three sites iconic destinations as well as prime spots to explore nature.

At the Nature Reserve, we honored longtime director John Behrer upon his well-deserved retirement and welcomed Dr. Quinn Long as our new director. Dr. Long has been a part of the Garden’s Center for Conservation and Sustainable Development since 2011. His wealth of knowledge in plant conservation and passion for the Nature Reserve make him the perfect steward to carry this natural gem into the future.

In 2017, we also witnessed great progress on several *Garden for the World* campaign projects. The Oertli Hardy Plant Nursery continued to take shape, and renovation began on the Stephen and Peter Sachs Museum, with an eye toward the 2018 spring opening to the public. A new addition was built to make the museum accessible to all, the stunning ceiling mural was recreated, the main gallery restored to its historical glory, and historical ceiling portraits were discovered. This renovation has been a remarkable journey for everyone at the Garden, and it would not have been possible without you, our strongest supporters.

Indeed, each of the achievements made by the Garden truly belong to you. Our mission, our vision, our strategic plan to protect plants around the world is only possible because you believe in our work. I must extend my appreciation to the donors who lead those efforts, including the outgoing chair of our Board of Trustees, Lelia Farr. It has been a privilege to work with Lelia, and I am truly grateful for her leadership.

A handwritten signature in black ink that reads "Peter Wyse Jackson". The signature is written in a cursive, flowing style.

Dr. Peter Wyse Jackson,
President

from the chair



I am so proud of what we are accomplishing together. The legacy of the Missouri Botanical Garden spans nearly 160 years of visionary leadership, inspirational philanthropy, and community partnership. In 2017, we celebrated the 40th anniversary of *Seiwa-en*, our Japanese Garden, a beloved landscape that exemplifies those qualities.

The Garden remains a destination for both science and beauty, for students and families, for research and relaxation. More than one million visitors once again enjoyed the Garden, Shaw Nature Reserve, and Sophia M. Sachs Butterfly House. Garden Glow celebrated its fifth anniversary with record attendance of more than 135,000.

Garden research scientists described 254 species new to science in 2017. An average of 10% of all the new plants discovered and described anywhere in the world each year are the result of work by Garden scientists.

Our Seed Bank, located at the Nature Reserve, now hosts more than 750 species, including more than 120 rare and threatened species. As part of our strategic initiatives for conserving the flora of Missouri, more than 25% of the collection represents native Missouri species. We are on pace to safeguard all known plant species in the state by 2020.

The Garden worked with regional partners in the spring and fall to remove 350,000 invasive bush honeysuckle plants from public spaces across our community. More than 20 sites participated, and over 600 volunteers were mobilized. This effort—and education regarding invasive species—will continue in 2018 and beyond.

The Nature Reserve also hosted their second BioBlitz in partnership with the Academy of Science—St. Louis in September. Citizen scientists of all ages joined professional scientists to document more than 180 species of plants and animals at the Nature Reserve, including the federally endangered Indiana bat.

These are only a few of the successes the Garden experienced in 2017. I am honored to have been chair of the Board of Trustees during this time of growth. And I thank each of you for your commitment to that growth. Together, we ensure Henry Shaw's legacy is strengthened for generations to come.

Lelia Farr,
Chair, Board of Trustees

board of trustees

Officers

Lelia J. Farr, *Chair*
Daniel A. Burkhardt,
Vice Chair

David M. Hollo,
Vice Chair

Peter S. Wyse Jackson,
MA, PhD, FLS,
President

Peter H. Raven, PhD,
President Emeritus

Members

Catherine B. Berges
Sharon D. Fiehler

Kirk A. Imhof
David W. Kemper
Ward M. Klein
Charles E. Kopman
Chris Lewis
Carolyn W. Losos
Daniel J. Ludeman
W. Stephen Maritz
Cynthia S. Peters
Nicholas L. Reding
Scott C. Schnuck
Rex A. Siquefield
Michael K. Stern, PhD
Andrew C. Taylor
Eugene M. Toombs

Michael K. Stern, PhD
Andrew C. Taylor
Eugene M. Toombs

Lisa Trulaske
Josephine Weil
Robert M. Williams, Jr.

Ex Officio

Thomas F. George, PhD
Benjamin H. Hulsey
The Honorable Lyda
Krewson
Fred P. Pestello, PhD
Jeff L. Pittman, PhD
Bishop George Wayne
Smith
The Honorable Steven
V. Stenger

Rick Sullivan
Mark S. Wrighton, PhD

Members Emeriti

Mrs. Walter F. Ballinger II
Clarence C. Barksdale
John H. Biggs
Stephen F. Brauer
William H. T. Bush*
Bert Condie III
Prof. Sir Peter R.
Crane FRS
Arnold W. Donald
L. B. Eckelkamp, Jr.
Marilyn R. Fox

Robert R. Hermann
Robert R. Hermann, Jr.
Edward D. Higgins
Paula M. Keinath
Rosalyn H. Kling
Robert E. Kresko
Hal A. Kroeger
June M. Kummer
James S. McDonnell III
Cheryl Morley
Roy Pfautch
Mabel L. Purkerson, MD
Peggy Ritter
Joseph F. Shaughnessy
Nancy R. Siwak

Robert B. Smith III
Nora R. Stern
William K. Tao, DSc
Jack E. Thomas
Jane S. Tschudy
John K. Wallace, Jr.
O. Sage Wightman III
Roma B. Wittcoff

Honorary

Surinder (Suri) Sehgal,
PhD

*deceased



(top) The new Sach's Museum features a new addition with updated and expanded restrooms and an elevator, making the museum accessible to everyone. The addition follows the standards for the treatment of historic properties by the National Park Service.

(bottom from left) Andy and Peggy Newman viewing the first ethnobotany display at the Sach's Museum. Greg and Prissy Evans pose with Museum Curator Nezka Pfeifer at the museum dedication. Artists putting the final touches on the ceiling mural, which was recreated on canvas before being installed.

RESTORING A HISTORIC TREASURE

For decades, Henry Shaw's museum was closed and dark. The museum is one of the Garden's most iconic buildings, and its history dates back to Garden founder Henry Shaw. But the historic architecture waiting in the Victorian District was unknown to visitors, who walked right past. Staff worked simply to keep the structure from decaying.

Dr. Peter Wyse Jackson saw the potential of Shaw's Museum when he arrived at the Garden in 2010. He recognized the building's historic importance and called for its renovation and restoration. Several key donors responded to his call to return the structure to prominence and use. Longtime Garden supporters Louis Sachs and Jack Taylor made lead gifts with their families. The Newman family and Evans family also made significant contributions.

"It's such an important space," says Greg Evans. "We're proud to make the naming gift to restore the main historic gallery." Greg and his wife Priscilla are avid gardeners and active in the Ladue Garden Club. They've been excited to be a part of restoring the museum and its surrounding gardens.

Shaw's museum was established in 1859, the same year the Garden officially opened its doors to the public. When Shaw was building the Garden, he drew inspiration from the magnificent gardens and estates of Europe. Dr. George Engelmann, one of the great early American botanists, envisioned the Garden being more than a public park. He persuaded Shaw to ensure the Garden was involved in scientific work and included a herbarium and library.

Harvard botanist Dr. Asa Gray and Sir William Hooker, director of the Royal Botanic Gardens, Kew, supported Dr. Engelmann and Shaw in this effort.

Dr. Engelmann and Dr. Gray are memorialized in the museum, but their portraits were hidden from modern knowledge. Restoration crews discovered a large mural behind a drop ceiling on the south end of the building. It portrays these influential botanists along with Carl Linnaeus, the father of modern taxonomy. The mural is now incorporated into the public display.

"My family has been involved with the Garden for years," says Andy Newman. "We're happy to support the reopening of this historic treasure." Andy's family has indeed been longtime friends of the Garden; his mother Evelyn was a Garden Trustee and one of the founders of the Sophia M. Sachs Butterfly House.

Construction and rehabilitation work took place in 2017 on the Stephen and Peter Sachs Museum as part of the *Garden for the World* campaign. The rehabilitation included restoring architectural features and recreating the original ceiling mural. A new addition to the east side of the building was also built. This new space features modern restrooms and an elevator, making the Sachs Museum accessible to everyone. Following the standards for the treatment of historic properties by the National Park Service, this addition protects the integrity of the historic building and its environment with an obviously modern look.

90+

number of
plant species
identified in the
recreated
ceiling mural

1982

year the museum
officially closed
to the public and
opened only on
special occasions



(top) The first phase of the project included the installation of a greenhouse structure previously donated by Ahners Nursery.

(bottom from left) Growing wild-collected plants on-site and adding them to the Garden's living collections is a tool for both conservation and education purposes. Chuck and Sue Oertli enjoying an evening at the Garden. The new space will allow the Horticulture team to propagate plants for the annual displays, including plants used in the floral shows.

SPACE TO GROW

When the Oertlis say they've watched the Missouri Botanical Garden grow, they mean it. Sue and Chuck Oertli joined the Garden in 1969. Sue is a past president of the Members' Board and helped establish the Membership Services Desk. Chuck is the former chair of Guarantee Electrical Company; both he and the company have been a great friend and neighbor of the Garden for many years.

The Oertli family also knew the Garden had long outgrown its nursery facilities. For decades, the Garden has relied on about one acre of nursery space to house our permanent collections, grow thousands of individual plants for annual floral display, and conduct research and propagation work for conservation programs.

Guarantee Electrical Company has been led by the Oertli family since the 1940s. The company recently completed a process to transfer ownership to the employees. Understanding the Garden's need for nursery space nearby, the family and company gifted more than 6 acres of their 16-acre complex at 3400 Morgan Ford to the Garden in 2016.

"We know Guarantee is delighted to have the Garden as a long-term neighbor, and we believe this is a true win for everyone involved, including the largely residential Tower Grove South neighborhood," say Rick and Roger Oertli, co-managing members of the family LLC that controls the property. "The part sale and part gift of the complex was a wonderful way to satisfy the needs of the company, the family, and the Garden."

The Garden began to expand its nursery operations with the creation of the Oertli Family Hardy Plant Nursery on these donated acres. The first phase of the project was completed in 2017 and included demolition of existing structures, grading of the land, and the installation of a greenhouse structure previously donated by Ahners Nursery.

When fully operational, the Oertli Nursery will allow horticulturists to produce at least 95% of the Garden's plant material. The Garden currently has to buy much of the plant material for annual displays. The majority of the plants grown at the new facility will be large trees and shrubs, hardy herbaceous perennials.

The Oertli Nursery will also become a home for wild-collected specimens. "This project represents an important step in our mission to conserve some of the world's rarest and most endangered plant species while supporting the Garden's displays and permanent collections in a more sustainable way," says Andrew Wyatt, Senior Vice President of Horticulture and Living Collections.

95%

of Garden's plant material expected to be produced at the new hardy plant nursery

6.38

acres of land donated by the Oertli family for the new hardy plant nursery



(top) *The Heliconia*, by artist Craig Mitchell Smith, was one of the pieces of art displayed inside the Climatron during the summer exhibit *Garden of Glass*.

(bottom from left) Fused glass art is a technique that's much different from traditional blown glass, and it requires computerized kilns for very precise temperature control. Leo, Pat, Ann, and Mike Konzen of PGAV Destinations attending Garden Soiree. Garden Glow celebrated its fifth anniversary with new displays and more than 1 million lights.

WORLD-CLASS EVENTS

Each year, the Garden hosts dozens of events, offering unique experiences to our visitors and community. In the summer of 2017, the natural world was depicted in glass. *Garden of Glass: The Art of Craig Mitchell Smith*, presented by PGAV Destinations, featured larger-than-life sculptures artfully displayed among the tropical landscape of the Climatron®. Visitors were treated to four art installations on the Garden grounds before entering the iconic conservatory. *Blue Morpho* was also on display at the Sophia M. Sachs Butterfly House. More than 80,000 visitors enjoyed the exhibit over nearly 100 days and 40 nights.

Garden of Glass was also the backdrop for a special summer concert and opening fundraiser, Garden Soiree. More than 600 guests enjoyed an evening of fabulous food, signature cocktails, and an exclusive performance by The Samples. They were also the first to see *Garden of Glass* with its dramatic night lighting.

81,481

total Garden
of Glass
visitors

\$39,000

raised through
memberships
sold

\$112,500

sponsorship
for Garden of
Glass

Some events become annual favorites, and our winter light exhibit Garden Glow quickly moved into that category for our community. The Garden hosted its fifth annual Garden Glow for record attendance of more than 136,000 visitors in 2017. The expanded exhibit, presented by Wells Fargo Advisors, featured more than one million lights throughout the Garden's most iconic spaces. Garden Glow tickets also included admission to Gardenland Express: Holiday Flower and Train Show, which showcased the rich history of poinsettias and their native habitat in Mexico and Guatemala.

Presenting sponsors like PGAV Destinations and Wells Fargo Advisors are critical to the success of these major exhibits. The events offer immersive experiences for visitors of all ages, and lead sponsors allow the Garden to ensure events maintain a world-class level of excellence.

136,642

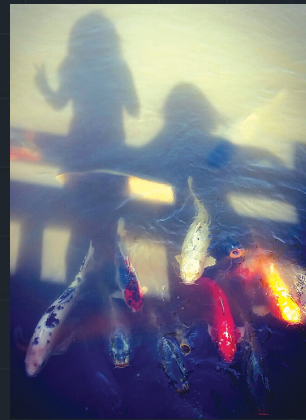
total
Garden Glow
attendees

\$135,000

sponsorship
for Garden
Glow

\$1.77m

ticket revenue
from Garden
Glow



(top) The Japanese Garden, designed by Koichi Kawana, showcases distinct aspects of its beauty from different vantage points.

(bottom from left) The Garden's collection of sacred lotus (*Nelumbo nucifera*) in the Japanese Garden are planted in a large enclosed bed along the banks in the southeast corner of the lake. St. Louis Mayor Francis Slay and Dr. Peter Wyse Jackson toast the Japanese Garden with members of the Japan-America Society at the Japanese Festival. Aunnalaray Park, one of the photo contest winners, captured this personal moment feeding the koi in the Japanese Garden.

HARMONY AND PEACE

For 40 years, the Japanese Garden has been a favored and iconic location within the Missouri Botanical Garden. Without the Japan-America Society of St. Louis, it may never have been built. This beloved space is the result of a partnership that began in the 1960s.

Each year, the Japan-America Society of St. Louis hosted a cultural heritage festival. They began raising money to develop an authentic Japanese garden in St. Louis and approached then-Garden president Dr. Peter H. Raven about the project in 1972. Dr. Raven and the Garden's board believed a Japanese garden would establish our reputation as a world-leading venue for international display gardens. A partnership was formed that has enriched our community for four decades with both the Japanese Garden and the annual Japanese Festival.

The 1977 dedication ceremonies for *Seiwa-en*, the garden of "pure, clear harmony and peace," lasted four days. In 2017, the Garden honored the 40th anniversary of the Japanese Garden. Our yearlong celebration included commemorative notecards, the annual Japanese Festival, and a stunning historical photography exhibit in Monsanto Hall of the Ridgway Visitor Center.

Rather than the typical garden filled with striking statuary, showy plants and flowers, the Japanese Garden is a monochromatic understatement, in which the viewer is permitted the thrill of personal interpretation and discovery.

Guests were invited to join the celebration through a photo contest, sharing their own images of the Japanese Garden on Instagram with the tag #Happy40JG. Garden horticulturists selected their favorites from more than 950 submissions. Four monthly winners received tickets to the 2017 Japanese Festival, and a grand prize winner received a one-year Festival-level membership.

The Japanese Festival actually celebrated its 41st anniversary in 2017; the festivals began at the Garden before *Seiwa-en* was ready to open. Each year, the Japanese Festival is produced in partnership with the Japanese Activities Committee of the Japan-America Society. This coalition of Japanese-American organizations provides art, dance, food, and entertainment for thousands of festival visitors each year. In 2017, more than 39,000 guests enjoyed the three-day Japanese Festival over Labor Day weekend.

The 14-acre Japanese Garden is stunning in all four seasons, designed by renowned landscape architect Koichi Kawana to showcase distinct aspects of its beauty from different vantage points. Like most Japanese gardens, *Seiwa-en* draws from centuries of tradition. Water is central to the design in the lake, raked gravel patterns, and waterfalls.

Within the lake, Tortoise Island and Crane Island both represent the Japanese symbol of longevity. Paradise Island, the symbolic spiritual center of the garden, is formed by three boulders. Teahouse Island holds a sanctified Shinto shrine and is only open to the public during Japanese Festival.

For 40 years, visitors have enjoyed cherry blossoms, peonies, azaleas, lotus, evergreens, and even snow in this stunning and serene landscape.



(top) Children help plant a garden in the Normandy Early Childhood Center as part of the Garden's *Sprouting Science* program.

(bottom from left) The goals of *Sprouting Science* are to cultivate a child's interest in plants and nature and to provide teachers the tools to incorporate nature into their curriculum. Keisha Watkins, a participant in the Garden's Outdoor Youth Corps, collects seeds at Shaw Nature Reserve as part of the trainings, workshops, and special activities provided each summer to local teens. Participants in ECO-ACT, one of the Teen Network programs, develop skills for teaching on the themes of environmental awareness, ecology, and conservation.

IN OUR COMMUNITY

The Missouri Botanical Garden is one of the leading organizations working around the world to discover, document, restore, and conserve plant life. We can't do this crucial work alone. Partnering with local communities—whether in St. Louis or in Peru—is essential to carrying out our mission.

In 2017, the Garden was fortunate to have partners for these local community engagement efforts. The Boeing Company has supported early childhood education efforts for five years. One of the Garden's most successful initiatives on this front is Sprouting Science in St. Louis: Digging Deep With Urban Youth.

Since 2014, the Garden has partnered with Boeing and the St. Louis Public School District to weave together early childhood education and urban biodiversity. The program cultivates a child's interest in plants and nature in their neighborhoods. Activities include classes held at the Garden, school-based outreach programming, and family engagement events throughout the year. The program also provides professional development workshops for teachers to learn more about incorporating nature into their curriculum.

Maritz Holdings, Inc. has also supported community engagement programs led by the Garden for years. Most recently, they have focused on our Sprouting Science programs for older children. The Garden's Teen Network of programs provides students an opportunity to spend more time outdoors exploring and understanding the natural world. It also enables them to become successful, caring community members with the leadership and problem-solving skills they'll need as future stewards. For many, it's their first hands-on introduction to the natural world and a wide range of career options.

In 2017, Maritz's support included the second year of the Garden's participation in the St. Louis Green Teen Alliance through the Outdoor Youth Corps program, part of the Teen Network and a partnership with STL Youth Jobs. Ten high school students were employed in the summer to beautify green space, build green infrastructure, and help create healthy ecosystems and neighborhoods in the St. Louis region. They worked in the Baden and Wells Goodfellow neighborhoods in north St. Louis County. The Garden offered "working" field experiences for the participants as well as field trips for the Baden Enrichment Center Youth.

Our commitment to engaging kids of all ages—in and out of school—led to our first Noche de Familia in 2017. The Garden's therapeutic horticulture staff held this family night event for the local Hispanic community. The event was in partnership with St. Louis Crisis Nursery, Kingdom House, and South City Church. More than 400 people of all ages participated in activities around the Garden, such as making seed bombs and potting basil. The successful Noche de Familia event served as a model for other local institutions, including the Missouri History Museum's Latino Family Night in October.

80%

Sprouting Science participants who can now recognize common plants and insects

75%

Sprouting Science educators taking students outdoors more often for learning



(top) With a prioritization of high-biodiversity glade margins, 17 acres with the densest invasive brush were effectively controlled during the first six-month grant period. The area is in the a tract in the Nature Reserve commonly referred to as the "Morton Property."

(bottom from left) It may be hard to believe, but this is what the area pictured at the top looked like before being cleared of invasives. Jeanne Dalba, President of the Trulaske Family Foundation, visits Shaw Nature Reserve to review progress. Shaw Nature Reserve staff and volunteers cleared invasive brush as part of the restoration efforts in the Morton Property.

RESTORING ECOSYSTEMS

At the Garden, we understand conserving a single species has value. Of equal value, however, is conserving and protecting the ecosystem in which that species is meant to grow and thrive. For thousands of years, humans have been transforming ecosystems. Teams across the globe are working to restore ecosystems threatened by this process.

Partners are essential to restore a threatened ecosystem. Fortunately, restoring the environment is a key area of focus for the Robert J. Trulaske, Jr. Family Foundation. The Trulaske Family Foundation is committed to the conservation, protection, management, and restoration of endangered Missouri prairieland and the Meramec River watershed. This focus makes the foundation a key ally in the work of Shaw Nature Reserve.

Ecological restoration is an integral component of the Nature Reserve's mission: to inspire responsible stewardship of our environment through education, restoration, and protection of natural habitats, and public enjoyment of the natural world. Efforts to restore ecological communities at the Nature Reserve began in 1979; now, the Nature Reserve actively manages more than half of its 2,400 acres for native biodiversity. With this progress, the Nature Reserve has become widely recognized as a model for ecological restoration and the use of prescribed fire to manage woodlands, glades, and grasslands.

The Nature Reserve took the next step in active restoration in 2017 with support from the Trulaske Family Foundation to manage a 325-acre section known as the "Morton Property." This highly diverse tract of the Nature Reserve includes dolomite glades, oak woodlands, and floodplain forests bordering a mile of the Meramec River.

Nature Reserve staff have begun removing invasive species such as bush honeysuckle and selectively thinning trees to restore woodland understory light conditions. Through this multi-year restoration, teams of staff, volunteers, and students will collect, store, and sow seed of native plant species to restore understory vegetation. Prescribed ground-layer fires will help prevent recolonization of invasive species and facilitate long-term recovery of native plant diversity.

The efforts in the Morton Property are part of the Shaw Nature Reserve Strategic Plan for Ecological Restoration and Land Management, which provides a framework for restoration through 2030. The plan guides efforts to restore the diverse natural communities that provide habitat for native plants and the insects, birds, and other fauna that rely upon intact natural landscapes. The Trulaske Family Foundation grant also helped purchase equipment that will improve ecological restoration capacity at the Nature Reserve for years to come.

130
acres of the
Morton Property
successfully
managed with
prescribed burns

50+
native woodland
species collected
during first six
months of grant
funding



(top) A number of plants labeled *Dracaena umbraclifera* were growing in botanical gardens around the world, including the Garden's Climatron.

(bottom from left) Using DNA testing in the Garden's Conservation Genetics Lab, researchers discovered surviving specimens of a species formerly thought to be extinct in the wild. The plant's inflorescence as observed by researchers in the field in Madagascar. Genetic tests indicated these *D. umbraclifera* are more closely related to *Dracaena reflexa* from Madagascar than to Mauritius, which was previously thought to be its home.

PATH TO REDISCOVERY

A good deal of plant conservation actually happens under a microscope and in a lab. Genetic information can help assess genetic threats that jeopardize a species' survival, such as inbreeding or hybridization. It can measure the genetic diversity in a rare species to ensure that conservation efforts protect the full range of genetic diversity.

Conservation genetics is one of the areas of specialization at the Garden's Center for Conservation and Sustainable Development (CCSD). The work of the CCSD guides restoration efforts by providing information about ecology and reproductive biology of plants. It can also help scientists understand the ability of a species to adapt in response to climate change. Finally, conservation genetics can help determine whether a species is truly rare or just a subpopulation of a widespread species.

Donors like the Bellwether Foundation have long understood the value of the CCSD and their role in the Garden's efforts to conserve and promote biodiversity around the world. For several years, the Bellwether Foundation has hosted a challenge match to both endow the CCSD and bring on new donors to support critical discoveries in the lab and in the field.

"You don't just rediscover an extinct species every day."

-Dr. Christine Edwards,
Stephen and Camilla Brauer Conservation Geneticist
and lead author of the *D. umbraculifera* paper.

In 2017, with funds from the Bellwether Foundation challenge, the CCSD team published a paper confirming that, after several years of research, they proved an extinct plant wasn't actually extinct after all. Using DNA testing, Garden researchers discovered modern specimens of *Dracaena umbraculifera*, a species described in 1797 from a cultivated plant attributed to the island of Mauritius.

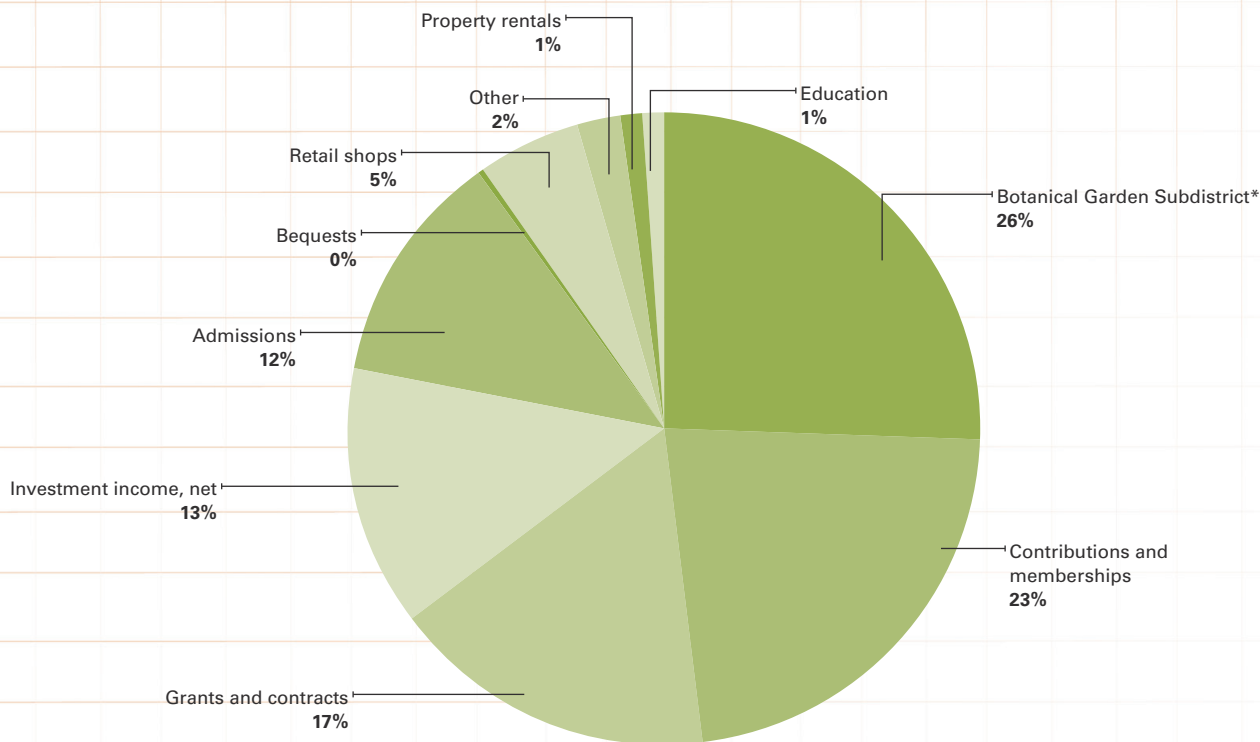
Over the years, attempts to locate the plant in Mauritius were unsuccessful. As a result, it was categorized as Extinct on the International Union for Conservation of Nature (IUCN) Red List.

A number of plants labeled *D. umbraculifera* were growing in botanical gardens around the world, but genetic tests indicated these *D. umbraculifera* are more closely related to *Dracaena reflexa* from Madagascar than to Mauritian *Dracaena*. Armed with that information, researchers conducted field expeditions in Madagascar, ultimately discovering five wild populations. They concluded the species' status under the IUCN Red List should be changed to "Critically Endangered" rather than "Extinct."

This success story highlights the importance of living collections in botanical gardens. Even specimens that are centuries old and might lack information about origin can contribute to modern conservation. Genetic analysis of these plants can help scientists make new discoveries and save endangered species. "It is rare to have the opportunity to rediscover a species that hasn't been seen in the wild for 200 years," says Dr. Christine Edwards, Stephen and Camilla Brauer Conservation Geneticist and lead author of the *D. umbraculifera* paper. "We're grateful to have funders that understand the importance of this discovery."

financial information (year ended December 31, 2017)

2017 Operating Revenue



2017 Operating Revenue

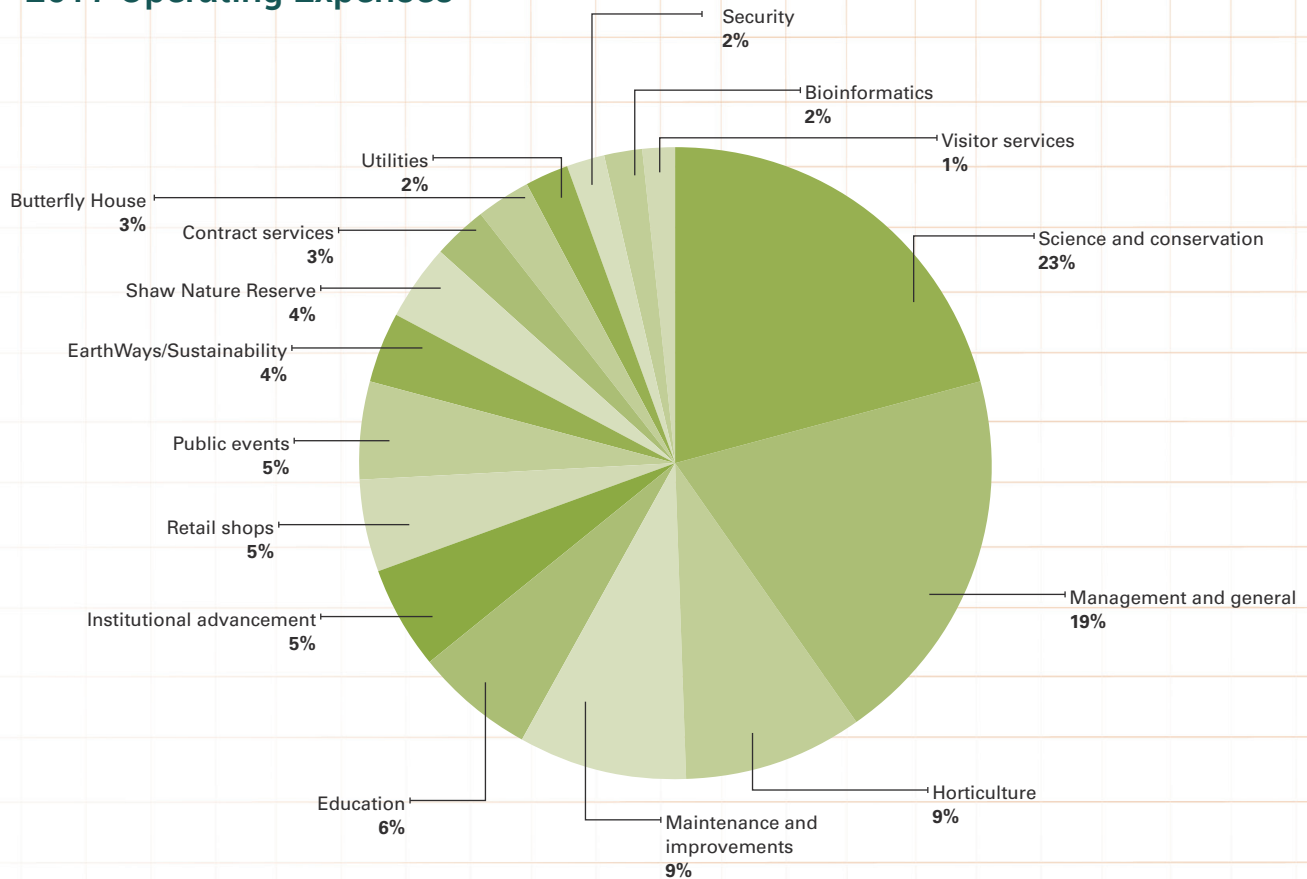
Botanical Garden Subdistrict	\$10,600,000
Contributions and memberships	9,248,898
Bequests	124,564
Grants and contracts	6,840,640
Investment income, net	5,536,953
Admissions	4,977,364
Retail shops	2,068,438
Other	962,052
Education	418,151
Property rentals	449,840
Total Operating Revenue	\$41,226,900

2017 Operating Expenses

Operating Services	
Science & conservation	\$8,290,424
Horticulture	3,604,521
Education	2,356,990
Public events & Major exhibits	1,950,288
Retail shops	1,861,204
Contract services	1,112,440
Earthways/Sustainability	1,526,156
Butterfly House	1,050,727
Shaw Nature Reserve	1,454,936
Bioinformatics	742,819
Visitor services	578,287
Total Operating Services	24,528,792
Supporting Services	
Management and general	7,687,964
Maintenance and improvements	3,402,561
Institutional advancement	2,071,218
Utilities	972,939
Security	772,751
Total Supporting Services	14,907,433
Total Operating Expenses	\$39,436,225

financial information

2017 Operating Expenses



2017 Fund Balances

Operating Fund

Total operating support and revenue	\$41,226,900
Total operating expenses	(39,436,225)
Total operating transfers	(1,148,340)
2017 Operating fund excess/(deficit)	642,335
2017 Pension liability adjustment	(436,235)
1/1/17 Operating Fund balance	4,676,808
12/31/17 Operating Fund balance	4,882,908
Endowment Fund	154,242,311
Land, Building, and Equipment Fund	83,051,067
Capital Campaign Fund	2,649,667
Gift Annuity Fund	12,465
Total All Funds	\$244,838,418

*Botanical Garden Subdistrict

Since 1972, residents of St. Louis City and County have generously supported the Metropolitan Zoological Park and Museum District (ZMD). The ZMD is a property tax-supported district that distributes funds through five cultural subdistricts, which include the Botanical Garden Subdistrict. The Botanical Garden Subdistrict has provided support for the Missouri Botanical Garden since 1983. The Garden is grateful for the continued support of the Botanical Garden Subdistrict.

Commissioners for the ZMD and the Botanical Garden Subdistrict as of April 2018 are listed on page 20.

Financial information used in this report was obtained from the 2017 Missouri Botanical Garden audited consolidated financial statements. These financial statements may be obtained by visiting mobot.org/reports.

thank you



members' board

The Members' Board leadership group organizes the activities and events that enhance and encourage membership, expand awareness in the community, and increase financial support for the Garden's mission.

Jeanie C. Davis, <i>President</i>	June Hutson	Susan N. Rowe
Tammy Behm	Debbie Jacobs	Marsha J. Rusnack
Ann M. Bowen	Ellen E. Jones	Mary Lee Salzer-Lutz
Debbie Callihan	Celeste D. Kennedy	Nancy L. Sauerhoff
Susan A. Cohen	Lynn M. Koeneman	Ron Schlappizzi
Kristen Cornett Knapp	Sally Kriegel	Susie Littmann Schulte
Mary Kay Denning	Martha LaFata	David P. Schulz
Libby Donnell	Janet B. Lange	Jan Simons Raiser
Ellen Dubinsky	Anne Lathe	Carol A. Squires
Kathy Durel	Stephanie K. Littlefield	Patricia B. Steiner
Patty Erker	Mary V. Longrais	Nora R. Stern
Audrey Feuerbacher	Virginia McCook	Elizabeth Teasdale
Kim Gamel	Parker B. McMillan	Ann Travis
Carola Gloyd	Janet Mika	Jane S. Tschudy
Barbara Hilton	Isabelle C. Morris	Debra K. Windus
Laure B. Hullverson	Sue B. Oertli	Douglas R. Wolter
	Sue M. Rapp	

young friends council

The Young Friends Council engages the young professionals of the St. Louis community with the global network of the Garden, developing events and initiatives to grow a younger Garden audience.

Ryan M. Furniss, <i>Chair</i>	Elizabeth M. Ferguson	Virginia O'Donnell
Lucy Adams	Mallory Fisk	Kevin O'Shaughnessy
Jay Alberts	Emily Fletcher	Rebecca Patel
Gwen Arenberg	Amanda C. Glenn	Julia L. Peters
Robyn Ast-Gmoser	Mersed Halilovic	Daniel Richter
Colleen Autry	Christine Hill Rogers	Katy Robertson
Ryan A. Bell	Cindy Hults	Kyle Rosborg
Laura Bentele	David Hults	Meghan Santen
Adam Berkowitz	Kati Johnson	Cary Stalnecker
Anne Bommarito	Megan S. Maher	John Strahlman
Patrick Bousquet	Evan Martin	Kristin Striebel
William D. Brennan	Chelsea Merta	Erin Sullenstrup
Allison Cohn	Laura Miller	Michael J. Torney
Kadie Crivello	Rebecca Miller, Ph.D.	Elizabeth U. Wells
Ashley Diaz	Bridget Morrell	Lee Wilber
Hilary Engelbrecht	Jennifer Mullikin	Athanasia Xeros
Sally Evans	Joseph A. Nonnenkamp	

zoological park and museum district

The Metropolitan Zoological Park and Museum District (ZMD) is a tax-supported cultural district governed by an eight-member board of directors, each appointed for a four-year term by the Mayor of the City of St. Louis and by the St. Louis County Executive.

Christine A. Chadwick, <i>Chair</i>	Thomas C. Mummert,
Michelle Harris, <i>Vice Chair</i>	<i>Assistant Secretary</i>
Thomas J. Campbell,	Pat Coleman, Board Member
<i>Immediate Past Chair</i>	Robert G. Lowery, Sr.,
Robert E. Eggmann, <i>Treasurer</i>	Board Member
Darnetta Clinkscale, <i>Secretary</i>	

botanical garden subdistrict

The ZMD levies an annual tax on property on behalf of five subdistricts, including the Botanical Garden Subdistrict. The subdistrict contracts with the Garden to provide botanical services.

Yemi S. Akande-Bartsch	Francis Yueh
Adrian E. Bracy	Hillary B. Zimmerman
John C. McPheeters	
Marcia B. Mellitz	<i>Non-voting advisory members:</i>
Brian A. Murphy	James Hoffmeister
Lydia Padilla	Naretha A. Hopson
Martin Schweig, Jr.*	Janice M. Nelson
Pamela Shephard	James H. Yemm
Marjorie M. Weir	

* deceased

thank you



corporate council

The dedicated representatives of the Corporate Council collaborate with the Garden to further relationships with the business community through education, sustainable business programs, volunteer opportunities, and special events.

Linda L. Lockwood, *Chair, Regions Bank*
Emily Andrews, *U.S. Green Building Council—Missouri Gateway Chapter*
Lindsay Auer, *Standing Partnership*
Julie E. Bahr, *Clayton Financial Group LLC*
Robert M. Bain, *Senniger Powers LLP*
Jake Barnett, *Morgan Stanley Wealth Management*
Michael Bernard, *Centene Corporation*
Patrick Bousquet, *SmithAmundsen LLC*
Matt Bremehr, *Object Computing, Inc. (OCI)*
Thaddeus Brija, *Renaissance Financial*
Donald J. Brown, *Guarantee Electrical Company*
Brian Bush, *CBRE*
Trey Coad III, *SCI Engineering*
Kenneth H. Crawford, *Argent Capital Management*
Dan Dilber, *Husch Blackwell LLP*
Christi Dixon, *Monsanto*
Melissa Earthman, *CISP, The Northern Trust Company*
Jay Ellington, *CDG Engineers*
Jason Florek, *KPMG LLP*
Pamala L. Funk, *The City of O'Fallon, Illinois*
Timothy W. Gamma, *Gamma Tree Experts*
Gregory J. Gorman, *Nidec Motor Corporation*
Diane Grimsley, *Tarlton Corporation*
Richard Halpern, *The Daniel and Henry Company*
Laurel Harrington, *Christner Inc.*
Patricia Hernandez, *Emerson*
Chip Hiemenz, *Hunter Engineering Company*
Jesse Hill, *Edward Jones*
Jenny L. Hoelzer, *Commerce Bank*
David Hunnius, *RBO PrintLogistix*
Thompson Knox, *SteadyRain, Inc.*
Carleen S. Kramer, *Catering St. Louis, Inc.*
Jenifer Larsen, *Maritz, Inc.*
David B. Lemkemeier, *Lewis Rice LLC*
Richard Lindquist, *Morgan Stanley Wealth Management*
C. Eric Lobser, *Spire*
Diane Lochner, *PGAV, Inc.*
Jeania Lowery, *Bank of America*
Joseph Marcallini, *SteadyRain, Inc.*
Mike McCarty, *Jacobs*
Wally McClellan, *Office Essentials, Inc.*
Douglas D. Mueller, *Anders CPAs + Advisors*
Gayla Nunn, *ABNA Engineering, Inc.*
Steve O'Rourke, *Microgrid Energy*
Ginny Powell, *Hager Companies*
Edward R. Rataj, *CBIZ & Mayer Hoffman McCann P.C.*
Jon N. Reed, *Graybar Electric Company, Inc.*
Peggy Reilly-Tharp, *Caleres*
Christi Reiter, *Cass Information Systems, Inc.*
Glenda Ricketson, *Community Volunteer*
Megan Ridgeway, *AIA, LEED, AP, Arcturis*
Julie Ring, *MiTek Industries, Inc.*
Dustin Ruch, *MetroGistics*
Christoph H. Schmidt, *CSI Leasing, Inc.*
Shawn Schukar, *Ameren*
Deb Seidel, *Bunge North America, Inc.*
Danielle Skosky, *Ronnoco Coffee, LLC*
Deborah Slagle, *MilliporeSigma*
Molly Spowal, *J.W. Terrill, a Marsh & McLennan Agency LLC Company*
Julia Steininger, *Standing Partnership*
Julio Suarez, *Anheuser-Busch Companies, Inc.*
Suzy Stone, *Macy's*
Jason P.Thein, *Thompson Coburn LLP*
Peter Van Cleve, *Bryan Cave LLP*
Tom Walsh, *Drury Hotels Company LLC*
Steve H. Wang, *Protiviti Inc.*
J. Nicci Warr, *Stinson Leonard Street LLP*
Robert M. Williams, *Williams Patent Crusher & Pulverizer Company, Inc.*

thank you

corporate partners

Businesses participating in the Corporate Partners Program make an annual membership gift. In return, they receive recognition and benefits throughout the year for their employees. They can also appoint a representative to the Garden's Corporate Council leadership board (see previous page).

Principals

Ameren Corporation
The Boeing Company
Centene Charitable Foundation
Commerce Bank
Drury Hotels Company LLC
Edward Jones
Emerson
Hunter Engineering Company
Monsanto Company
PGAV, Inc.
Renewal by Andersen
Anonymous
Wells Fargo Advisors

Shareholders

Anheuser-Busch Companies, Inc.
Bunge North America, Inc.
Carr Lane Manufacturing Co.
Glory Light International Ltd.
Macy's
Major Brands
Maritz Holdings, Inc.
MilliporeSigma
Nidec Motor Corporation
Peabody
Purina
Schnuck Markets, Inc.
SteadyRain, Inc.

Underwriters

Alberici Group

American Direct Marketing Resources Inc.
Bryan Cave LLP
Caleres
CBIZ & Mayer Hoffman McCann P.C.
Complete Weddings + Events
The Daniel and Henry Company
Enterprise Holdings Foundation
The Graybar Foundation
Hager Companies
Mercy
Metropolitan St. Louis Sewer District
Missouri American Water
Spire
Novus International, Inc.
Object Computing, Inc. (OCI)
PNC Bank
TOYOTA Bodine
UMB Bank, N.A.

Investors

Argent Capital Management
AT&T
Bank of America
BSI Constructors Inc.
CBRE
Chemia Corporation
Christner Inc.
Clayton Financial Group LLC
CSI Leasing Inc.
Express Scripts

Fifth Third Bank
GammaTree Experts
J.W. Terrill, a Marsh & McLennan Agency LLC Company
KPMG LLP
Mallinckrodt Pharmaceuticals
MiTek Industries Inc.
Office Essentials, Inc.
Orion Genomics, LLC
Senniger Powers LLP

Supporters

ABNA Engineering, Inc.
American Radiolabeled Chemicals
Anders CPAs + Advisors
Arcturus
Belden Inc.
Cass Information Systems, Inc.
Catering St. Louis, Inc.
CDG Engineers, Inc.
CIC Group, Inc.
The City of O'Fallon, Illinois
Clean-Tech Company
Cushman & Wakefield
Dierbergs Markets, Inc.
First Bank
FleishmanHillard
Guarantee Electrical Company
H.B.D. Contracting, Inc.
Holland Construction Services, Inc.
Husch Blackwell LLP

Lewis Rice LLC
MetroGistics
Metro Lighting
Midwest Recycling Center
Microgrid Energy
Morgan Stanley Wealth Management
The Northern Trust Company
Pepsi Beverages Company
Protiviti Inc.
QRS Recycling
RBO PrintLogistix
Regions Bank
Renaissance Financial
Ronnoco Coffee, LLC
SCI Engineering
SmithAmundsen LLC
Square One Brewery & Distillery
Standing Partnership
Stinson Leonard Street LLP
Systems Service Enterprises, Inc.
Tarlton Corporation
Thompson Coburn LLP
Total Wine & More
Urban Chestnut Brewing Company
U.S. Green Building Council-
Missouri Gateway Chapter
Villa Lighting Supply, Inc.
Williams Patent Crusher &
Pulverizer Company, Inc.

2017 event sponsors

We are grateful to the following sponsors making gifts of \$1,000 or more in 2017.

Anonymous
Ameren Corporation
Kelly Beard
The Boeing Company
Patrick and Kimberly Bousquet
Bryan Cave Leighton Paisner
Caleres
CBIZ & Mayer Hoffman McCann P.C.
Clayton Financial Group LLC
Commerce Bank
Consulate General of Japan
Cynthia S. Peters 2005 Charitable Trust
Ms. Elizabeth Danforth
Drury Hotels Company LLC
Edward Jones
Mr. and Mrs. David N. Farr
Fifth Third Bank
Ryan and Katie Furniss
The Gateway Gardener

Amanda and Robert Glenn
Graybar Electric Company, Inc.
Hager Companies
Healthy Planet Magazine
Mark Hershman
Ms. Jenni House
Japanese American Citizens League
Johnston Family Foundation
Jill Jonas and Kiayvah Ondrey
KDHX
Livetech, LLC
Major Brands Premium Beverage Distributors
Maritz Holdings, Inc.
Mercy
Metro Lighting
Metro/Bi-State Development
Metropolitan St. Louis Sewer District
McKay and Jason Mills

Missouri Department of Economic Development, Division of Energy
Missouri Environmental Fund
Missouri Foundation for Health
Moneta Group LLC
Nidec Motor Corporation
Novus International, Inc.
Object Computing, Inc. (OCI)
John and Anita O'Connell
PGAV, Inc.
Pohlmann Living Trust
Renewal by Andersen
Renovate America
Schnuck Markets, Inc.
SmithAmundsen LLC
Spire
St. Louis Composting, Inc.
St. Louis Homes & Lifestyles Magazine
St. Louis Public Radio KWMU

Mrs. Nora R. Stern
TOYOTA Bodine
Mrs. Jane S. Tschudy
UMB Bank, N.A.
Waterway Gas & Wash Company
Wells Fargo Advisors
Mr. and Mrs. Daniel A. West
Williams Patent Crusher & Pulverizer Company Inc.

by the numbers

visitors

Attendance at all locations	1,037,216
Highest daily attendance: Saturday, September 2 (Japanese Festival)	12,465
Highest non-event attendance: Sunday, May 14 (Mother's Day)	8,022
Lowest non-event attendance: Friday, January 6	73

members

Member households	47,105
Total number of member visits	338,753

personnel

Number of staff	413
Number of volunteers	1,991
Number of volunteer hours worked	117,699
Number of equivalent full-time staff with volunteers	57

communications

Total online visits	9,698,038
Unique online visitors	5,594,319
Total visits via mobile device	4,237,040
Total email subscriber base	92,000
Social network followers	225,000



education

Education Program Participation	445,279
Students and teachers participating in education programs	67,299
Teachers using workshops and instructional material	1,926
Scouts and leaders in education programs	8,299
Adults in adult education programs	20,505
Seniors, special-needs, others in horticultural therapy education programs	5,046
Youth and families in education programs	4,103
Youth and community outreach	7,011
Visitors experiencing drop-in education opportunities	331,090

education venue attendance

Visitors to the Doris I. Schnuck Children's Garden	114,731
Visitors to the Brookings Exploration Center	138,193
Visitors to Tower Grove House	108,449
Visitors to the Dana Brown Overnight Center at Shaw Nature Reserve	7,918

home gardening

Visitors to the William T. Kemper Center for Home Gardening	163,753
Master Gardeners	301 active volunteers; 41,208 hours of community service
Plant Doctor Service	4,011 clients; 4,967 questions
Horticulture Answer Service	6,471 calls; 9,758 questions
Gardening Help web visitors	18,949,987
Online email gardening questions answered	2,504

horticulture displays*

Total accessions	29,383
Wild source accessions	5,026
Total taxa/unique types of plants	16,725
Total rare taxa/unique types of plants	753
Total genera	2041
Total species	7134
Total plantings	57,623

science and conservation

PhD researchers	43
Staff publications	173
New species described	254
Countries where fieldwork is done	30
Graduate students	22, from 8 countries
Herbarium total specimens	6,784,806
Mounted specimens added to Herbarium	57,118
TROPICOS®	4,712,869 specimens 1,322,495 plant names
Articles published in MBG Press's two journals, <i>Novon</i> and <i>Annals</i>	93
New books added to Peter H. Raven Library	1,405
Interlibrary loans provided	345 from 27 countries

*as of April 2018

management team



Dr. Peter Wyse Jackson
President
(314) 577-5110
pwysejackson@mobot.org



Robert Woodruff
Chief Operating Officer
(314) 577-5142
bwoodruff@mobot.org



Dr. James Miller
Senior Vice President,
Science and Conservation
(314) 577-5176
jmiller@mobot.org



Paul Brockmann
Senior Vice President,
General Services
(314) 577-5129
pbrockmann@mobot.org



Andrew Wyatt
Senior Vice President,
*Horticulture and Living
Collections*
(314) 577-9426
awayatt@mobot.org



Olga Martha Montiel
Vice President, *Conservation
and Sustainable Development*
(314) 577-9412
omontiel@mobot.org



Dianne Johnson
Vice President,
Institutional Advancement
(314) 577-9495
djohnson@mobot.org



Sheila Voss
Vice President, *Education*
(314) 577-0284
svoss@mobot.org



Deborah Frank
Vice President, *Sustainability
and Shaw Nature Reserve**
(314) 577-0279
dfrank@mobot.org



Rebecca Ingram[†]
Vice President,
Human Resources
(314) 577-5122
ringram@mobot.org



Chuck Miller
Vice President,
*Information Technology and
Chief Information Officer*
(314) 577-9419
cmiller@mobot.org



Victoria Campbell
Director, *Sophia M. Sachs
Butterfly House*
(314) 577-0810
vcampbell@mobot.org



Dr. Quinn Long
Director, *Shaw Nature Reserve[†]*
(314) 577-9501
qlong@mobot.org

* Deborah Frank retired as Vice President of Sustainability and Shaw Nature Reserve summer 2017

† John Behrer retired as Director of Shaw Nature Reserve fall 2017

+ deceased

thank you!

you make our mission possible.





MISSOURI BOTANICAL GARDEN

4344 Shaw Blvd. • St. Louis, MO 63110 • (314) 577-5100 • www.mobot.org