

Pennsylvania Democratic Policy Committee Earth Day Hearing
Role & Impact of Public Gardens in the State of Pennsylvania
Thursday, April 22, 2021 10:00 a.m. to 12:30 p.m.

Location: Longwood Gardens, Kennett Square, PA – The Ballroom

Schedule and Agenda

9:30 a.m. Guest Welcome to Arrive via Visitors Center

10:00 a.m. Hearing Opening and Remarks
- Representative Ryan Bizzarro
- Representative Chris Sappey

10:05 a.m. Earth Day Hearing – *Role and Impact of Public Gardens*

Guest Panelists

- *Role and Impact of Public Gardens in the United States and Pennsylvania.*
Casey Sclar, PhD, Executive Director of the American Public Gardens Association
(Kennett Square, PA) (10:05-10:15)
Questions & Answers Session (10:15-10:20)
- *America's Garden Capital and Public Gardens Role in Building Community and Urban Farming.* Maitreyi Roy, Executive Director, Bartram's Garden (Philadelphia, PA)
(10:20-10:30)
Questions & Answers Session (10:30-10:35)
- *Public Gardens Impact on Professional Training, Agriculture, and the Environment*
Paul B. Redman, President and Chief Executive Officer, Longwood Gardens (Kennett Square, PA) (10:35-10:45)
Questions & Answers Session (10:45-10:50)
- *Public Gardens Role in Advancing Sustainability*
Richard Piacentini, President and Chief Executive Officer, Phipps Conservatory and Botanical Gardens (Pittsburgh, PA) (10:50-11:00)
Questions & Answers Session (11:00-11:05)

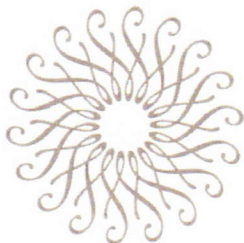
11:15 a.m. Tours – Horticultural Research & Conservation, and Production Facilities
- Attendees will adjourn and walk to the Horticulture Research Greenhouse
- Attendees will be divided into 3 groups and hosted by: Dr. Matt Taylor, Dr. Peter Zale, Dr. Jim Harbage



- Tour will include the following:
 1. Plant research and tissue culture
 2. Orchid collection and conservation
 3. Production headhouse and greenhouse

12:00 p.m. Return to Ballroom for Box Lunch on Music Room Patio (weather permitting)

12:30 p.m. Meeting Conclusion – All Guests Welcome to Enjoy Longwood on their Own

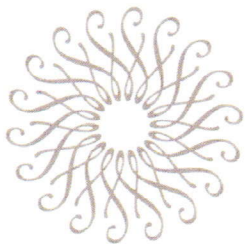


LONGWOOD
GARDENS

Pennsylvania Democratic Policy Committee Earth Day Hearing

Role & Impact of Public Gardens in the State of Pennsylvania

Thursday, April 22, 2021





Casey Sclar, PhD
American Public Gardens Association

Casey is the Executive Director of the American Public Gardens Association. The Association connects, protects, and champions about 600 gardens and 10,000 members located throughout the USA, Canada, Mexico, and 20 other countries. These gardens reach over 120 million visitors per year and envision “*a world where public gardens are indispensable.*” Casey’s work experience in horticulture and plant science spans three decades. Prior to Association service, he spent 15 years at Longwood Gardens (Kennett Square, PA) directing integrated pest management, soils and composting, land stewardship, and other sustainability programs. His B.S. degree in horticulture is from Cal Poly State Univ., San Luis Obispo, and his M.S. and Ph.D. degrees in entomology are from Colorado State University. Casey received the Association’s Professional Citation in 2011 for outstanding achievements in public horticulture. Casey’s service work promotes gardens, plants, and pollinators coupled with outreach efforts about threats such as invasive species. He was the Inaugural Chair of the *National Initiative for Consumer Horticulture* (NICH) and serves on its Economic Committee to raise awareness of the \$196B/yr. end-use horticulture industry. In addition, he serves as Board Treasurer of the *Xerces Society for Invertebrate Conservation* and on the Advisory Council for *Seed Your Future* to help future leaders pursue horticulture and the plant sciences as a career.



**Maitreyi Roy , Executive Director
Bartram's Garden**

Maitreyi Roy is the Executive Director of Bartram's Garden in Philadelphia. A landscape architect by training, she has spent almost 25 years looking at community greening issues through the lens of urban development.

Established in 1728, Bartram's Garden was the first botanic garden in the nation and is the oldest surviving botanic garden in North America. Situated on 46 acres along the Schuylkill River, the garden was stewarded by

three generations of the Bartram family and was once an important center for research and knowledge around plants and horticulture until 1891, when control of the site was turned over to the City of Philadelphia after the industry that surrounded the garden lost its presence in the city, precipitating decades of decline.

Located in Southwest Philadelphia, the garden is in one of the most underserved parts of the city.



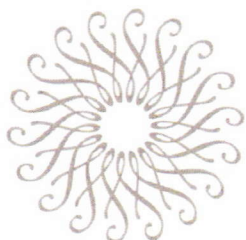
Paul B. Redman
President and Chief Executive Officer

Paul B. Redman is an award-winning leader of public gardens, known for his dedication to the beauty and sustainability of gardens, and to the training of future generations of horticulture professionals. A hallmark of Paul's leadership is building a culture of planning to propel a shared vision forward.

As President and Chief Executive Officer of Longwood Gardens for the last 15 years, Paul has implemented institutional and strategic reforms that have positioned the Gardens as a premier horticultural, cultural, and educational institution of the 21st Century, while respecting the values of its founder, Pierre S. du Pont. While numbers are not the only measure of success, especially during this tumultuous time across the globe, Longwood's growth as an economic engine, a cultural treasure, and a community supporter cannot be overlooked. Since Paul's arrival attendance has doubled to almost 1.54 million visitors per year; Membership support increased from 17,000 to 73,000 households; and earned income has almost tripled. New community engagement programs have been created providing greater access; thousands of hours of staff time, talents, and annual funds have been donated to local and national organizations; and free virtual field trips have taught tens of thousands of children around the world. In May 2020, Longwood Gardens was still ranked the most visited paid public garden in North America and the most visited paid cultural attraction in Philadelphia.

A consummate professional, Paul freely shares his time and expertise, serving as the Leadership Cabinet Co-Chair for Seed Your Future, a national initiative to promote awareness and careers in horticulture; and previously serving as Board President and Treasurer of the American Public Gardens Association. His honors include: 2020 Association Service Award from the American Public Gardens Association, 2018 National Garden Clubs Award of Excellence; 2017 Distinguished Alumnus from the Division of Agricultural Sciences and Natural Resources at Oklahoma State University; 2016 American Public Gardens Association Award of Merit; the International Garden Tourism Network's 2015 Person of the Year; 2015 American Horticultural Society's Professional Award; 2014 Wyck Strickland Award; 2014 American Society of Horticultural Science's Dr. William A. "Tex" Frazier Lecturer; 2012 CEO of the Year by the Chester County Chamber of Commerce, Business & Industry; 2008 Distinguished Horticulture Alumnus from Oklahoma State University; and where his professional career first began, Franklin Park Conservatory, receiving the Ann Islay Wolfe Award for extraordinary contributions to the organization.

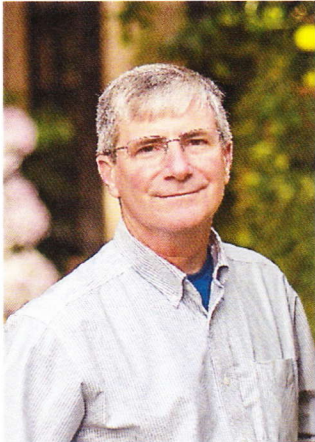
Paul has been working and studying in the field of public horticulture for more than 30 years. He received his Bachelor of Science Degree and Master of Science Degree in Horticulture from Oklahoma State University.





**Richard Piacentini, President and CEO
Phipps Conservatory and Botanical Gardens.**

Since 1994 Richard has guided the Pittsburgh organization from public to private management and is responsible for its green transformation including the opening of the Center for Sustainable Landscapes, a zero energy and water building and the only building to meet the Living Building Challenge®, LEED® Platinum, SITES™ Platinum, WELL® Platinum and BREEAM 6 Star certifications. The sustainability efforts Piacentini initiated at Phipps are based on recognizing the vital connections between people, plants, health, and the planet. Piacentini serves on the Advisory Board of the International Living Future Institute (ILFI) and Board of Green Plants for Green Buildings. He is a member of the Mission and Community Needs Committee for Magee-Womens Hospital, the Pennsylvania One Health Task Force, Biophilic Design Initiative Advisory Board, and the Advisory Committee for the Biophilic Cities Network. He is a Past President and Treasurer of ILFI and the American Public Gardens Association (APGA), and has received ILFI, US Green Building Council, and APGA leadership awards. Piacentini holds a MS in Botany, an MBA, and a BS in Pharmacy. He is a Registered Pharmacist and a WELL® Accredited Professional.



Dr. Jim Harbage
Director, Floriculture & Conservatories

Jim Harbage provides leadership for the acquisition and production of all seasonal plants, as well as permanent additions to conservatory collections. His team leads the design, installation, and management of conservatory displays. The Floriculture division manages production and acquisition of 100,000 pots of flowering plants annually in two acres of dedicated greenhouses and on a 2.5 acre outdoor container field. The plants encompass over 1,200 varieties and are used in conservatory and outdoor seasonal displays.

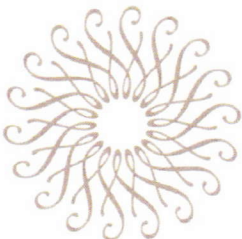
Jim's conservatory and floriculture expertise make him a sought-after consultant by many public gardens across North America. Most recently, he served in this capacity for the New Orleans Botanic Garden and Assiniboine Park Conservatory in Canada. Prior to Longwood, Jim was an Associate Professor of Horticulture at South Dakota State University.

Strategic Role within Longwood and Department

- Significant knowledge in floriculture production, nursery management, and research.
- Applies vast institutional knowledge strategically to both science and artistic initiatives.
- Critical leadership role in producing, implementing, and ensuring high quality of all seasonal conservatory displays.
- Contributes technical knowledge on greenhouse and conservatory management, floriculture production, soils, and horticulture department operations.
- Capital projection contribution to all greenhouse and conservatory building design, as well as associated environmental systems.
- Co-Chair of Floriculture Research Committee; Member of the following committees: Plant Collection Committee and Floriculture Research Committee.
- Jim often serves as a mentor in the Longwood Fellows mentorship program and the Horticulture Dept. mentorship program.

Leadership Strengths

- Strong leadership, knowledge, and ability to lead across both science and artistic aspects of operations.
- Institutional knowledge of all greenhouse and conservatory operations, as well as research functions.
- Technical knowledge: floriculture, plant physiology, research, nursery operations, and greenhouse management and design, and installation and design of seasonal horticultural displays.
- Strong advocate and ambassador for Longwood at the national and international levels.





Dr. Matt Taylor
Director, Research and Conservation

Matt Taylor is Director of Research and Conservation, who provides leadership for Longwood's Research, Land Stewardship, and Integrated Pest Management (IPM) Programs. These programs encompass horticultural conservation and restoration research; plant breeding, curation, exploration, and trials; management of 600 acres of woodlands, meadows, wetlands, agricultural lands; a soil and composting facility; and soils, tissue culture, research, and IPM laboratories. In addition to his leadership responsibilities at Longwood, Matt continues to publish scientific papers and teaches in Longwood's Professional Horticulturist and Continuing Education programs. Matt represents Longwood as a member of the American Society for Horticultural Science (ASHS), ASHS Public Horticulture and Invasive Plants Research Interests Groups, Northern Region of American Society for Horticultural Science (Former President), Botanic Gardens Conservation International, the Kennett Area Parks Association, and is on the Chester County Cub Scouts Council.

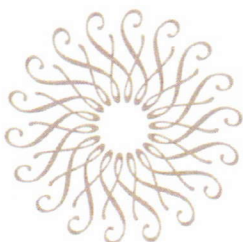
Prior to Longwood, Matt was the Head Grower for Wooding's Greenhouses in Central, Pennsylvania and is a two-time winner of the Alex Laurie Award for horticulture research. He has a Bachelor of Science in Horticulture from Penn State, a Master of Science in Horticulture from the University of Florida and a Ph.D. in Horticulture from North Carolina State University with minors in Soil Science and Plant Pathology.

Strategic Role within Longwood and Department

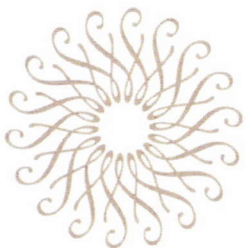
- The Horticulture Director with the most significant knowledge of, and responsibility for horticultural sustainability and land stewardship initiatives.
- Applies credible scientific knowledge to horticultural initiatives across the department and the entire organization.
- Leads a complex matrix of strategic initiatives related to research & conservation.
- Co-Chairs the Floriculture Research Committee and contributes to numerous committees including the Technology and Data Steering Committee, Chimes Editorial Board, Plant Collections Committee, Tree Review, Nursery Greenhouse Capital Project, Horticulture Committee, and the International Intern Selection Committee.

Leadership Strengths

- Scientific based reasoning skills combined with a proactive, results-driven leadership approach.
- Significant contributions to operating and capital projects as related to land stewardship, soil chemistry, and horticulture operations.



- Strong technical knowledge: research, conservation, soil science, composting, land stewardship, integrated pest management, floriculture, plant propagation, and greenhouse operations.
- High energy aptitude for leading across many disciplines.
- Decisive and proactive team-building skills.
- A strong advocate and ambassador for Longwood at local, national, and international levels.





Peter Zale

Associate Director, Conservation, Plant Breeding and Collections

Peter leads curatorial activities, and the plant breeding, exploration and conservation programs. He is a plant collections curator, research horticulturist, field botanist, and gardener that specializes in plant collections development, domestic and international plant exploration, ornamental plant breeding, and conservation horticulture. Peter directly supervises several full-time research specialists, and often a team of seasonal part-time employees and volunteers as needed. He also continues to teach, lecture, and publishes the results of his research. Peter serves on

The American Boxwood Society Board of Directors.

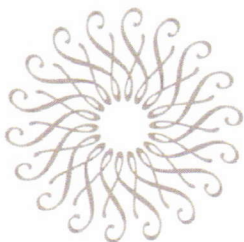
Prior to Longwood, Peter was the Nursery and Farm Manager at Marvin's Organic Gardens from 2001 to 2006. He received his Masters of Science and doctorate in plant breeding and genetics from Ohio State University.

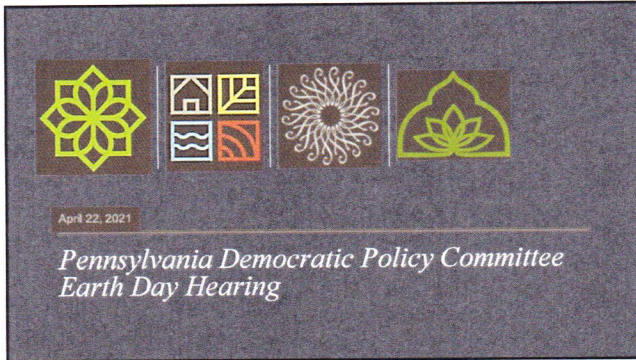
Strategic Role within Longwood and Department

- Peter serves as Longwood's primary expert on plant curation, breeding, plant exploration, plant conservation, and plays a significant role in setting strategic goals objectives for his areas of expertise.
- Recognized internationally and nationally as a significant contributor in plant exploration and conservation.
- Longwood's most knowledgeable plantsmen across all plant groupings.
- Credible scientific expertise in all disciplines noted above.
- Chairs the Plant Collections Committee and Collections Disaster Preparedness Committee, and is a member of the Interpretive Framework Committee and the West Conservatory Project Plant Selection Committee.

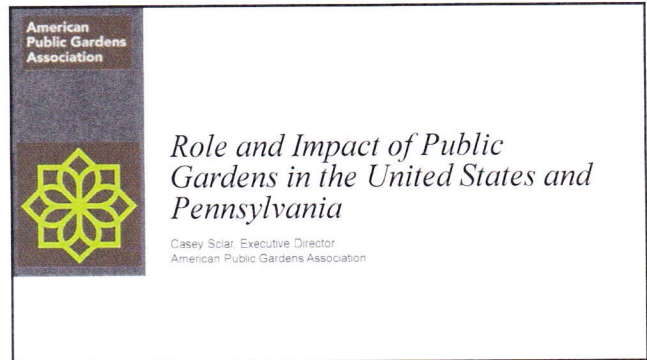
Leadership Strengths

- Proactive and self-driven focus to achieve strategic goals related to all areas of responsibility.
- Leads a small team that delivers a high quantity of important scientific work that is impactful nationally and globally.
- Highly skilled in the initiation and development of national and international partnerships.
- Seen as a "thought leader" in his area of expertise and serves as a significant resource for content by stakeholders inside and outside the organization.
- Strong fiscal skills, leverages budget to maximize outcome.





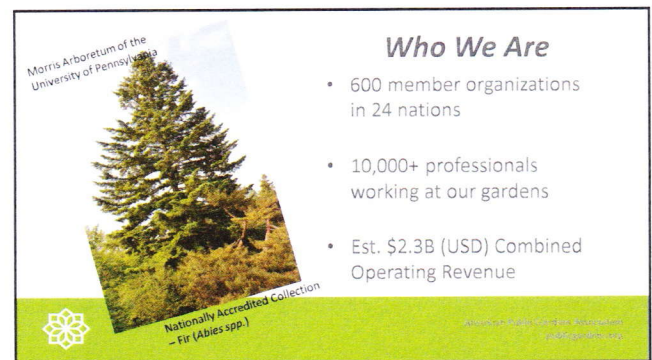
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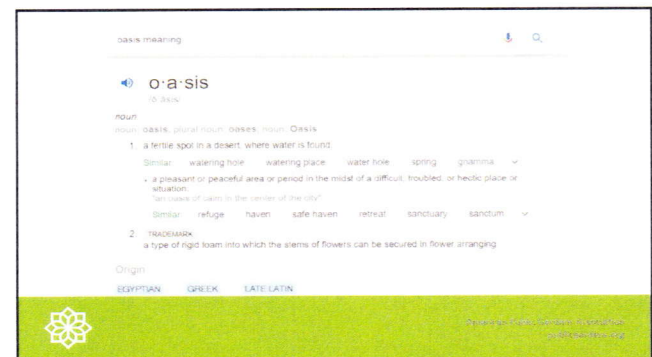
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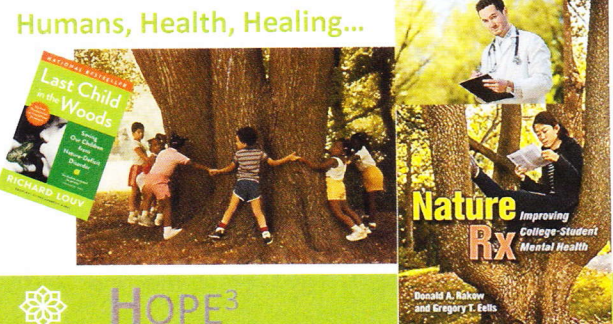
Shofuso Japanese Cultural Center

**"Places, to disconnect
...and reconnect"**

HOPE³

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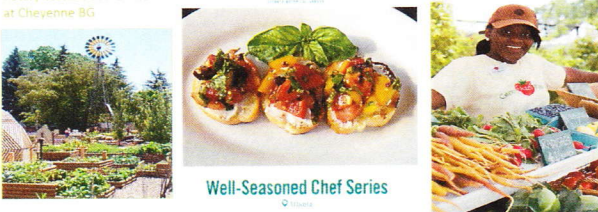
Humans, Health, Healing...



HOPE³

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Rotary World Food Garden at Cheyenne BG



Well-Seasoned Chef Series

Hospitality, Hungry, Hummus, Organic...

HOPE³

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HORTICULTURE




Tyler Arboretum – Media, PA Chanticleer - Wayne, PA

HOPE³

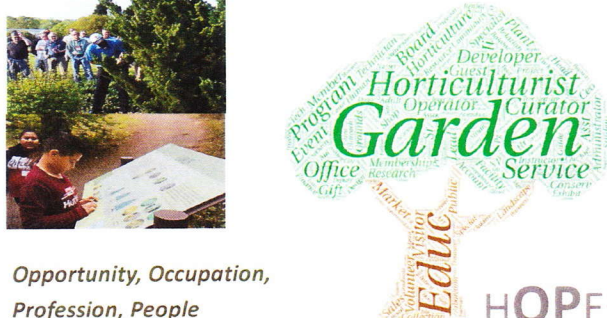
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Outdoors?
Open?
Ornamental?



HOPE³

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HOPE³

HOPE³

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Distributions of CWR, genebanks, and botanic gardens

The Places To Conserve Plants Are Closer Than You Think

The Crop Wild Relatives Project

HOPE³

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Climate & Sustainability Alliance

AMERICAN PUBLIC GARDENS ASSOCIATION

Disaster Readiness Initiative

AMERICAN PUBLIC GARDENS ASSOCIATION

Public Gardens Sustainability Index

Biocultural Conservation
Science & Conservation

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Smithsonian Gardens – Washington, DC

Celebrating America's Gardens

Preservation...

Stoneleigh: A Natural Garden
Villanova, PA

HOPE³

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Exhibits Entertain & Engage

HOPE³

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Cleveland Botanic Garden

Educate, Experience & Excite

Preschool Walk
Hoyt Arboretum

Maureen Ott
Discovers Walnut
@ Fernwood BG

HOPE³

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HOPE³

Ethnic & Equitable
& Environmental
Ecology & Economic
& Evaluated

HOPE³

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Jardin Botánico Benjamin Francis Johnston
Los Mochis, Sinaloa, Mexico

Ethnic & Equitable & Environmental

HOPE³

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Workplace Equity...

UBC Botanical Garden

Team Building in Nature

Employee Engagement in the Garden

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Equitable, Environmental & Ecology

HOPE³

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FOLLOW ALONG THIS WEEK FOR TIPS ON HOW TO CELEBRATE

EARTH DAY EVERYDAY #PLANTSDOTHAT

NICH

HOPE\$\$\$

Consumerhort.org

- \$196B Per Year Industry
- Consumer/Service = 75%
- 2 Million Jobs

#PlantsDoThat For Water!

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Public Gardens Benchmarking

FROM THE AMERICAN PUBLIC GARDENS ASSOCIATION

The Commonwealth of PA's 35+ Public Gardens have an estimated...

- Combined Operating Budgets of over \$164M USD
- Approximately 2000 FTE Employees
- Visitor Base of 4.2M People Annually
- \$500M USD of Economic Impact

2015 PA Regional Intern Field Day

HOPE³

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It would appear that our statesmen are willing to appropriate billions for battleships and engines of destruction, while unwilling to grant a pitiable pittance of a pauperium for projects of constructive significance, such as the plant laboratories we advocate.¹⁵

- Robert Pyle (1939)

- CEO, Conard-Pyle/Star Roses
- Founder, AABGA
- Introduced Rosa 'Madame A. Meiland' (The "Peace" Rose)

Ecology, Economic & Evaluated

HOPE³

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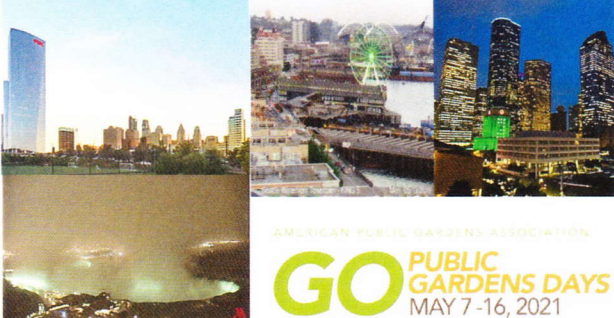
Thank you –
HOPE to see you
in a garden soon!

Contacts:
info@publicgardens.org csclar@publicgardens.org



American Public Gardens Association
publicgardens.org

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AMERICAN PUBLIC GARDENS ASSOCIATION
GO PUBLIC GARDENS DAYS
MAY 7-16, 2021

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A public garden is an institution that maintains collections of plants for the purposes of public education and enjoyment, in addition to research, conservation, and higher learning. It must be open to the public and the garden's resources and accommodations must be made to all visitors.

Public gardens are staffed by professionals trained in their given areas of expertise and maintain active plant records systems.


“What is a Public Garden?”



www.apga.org

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BARTRAM'S GARDEN



America's Garden Capital and Public Gardens Role in Building Community and Urban Farming

Mattrey Roy, Executive Director
Bartram's Garden

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AMERICA'S GARDEN CAPITAL

1. Bartram's Garden
2. High Museum of Art
3. Longwood Gardens
4. Mt. Airy Center
5. Rouseff Center
6. The Academy
7. University City Center
8. The University of Pennsylvania
9. The University of the Sciences
10. The University of Pennsylvania
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Economic Impact:

\$256 million in economic benefit to the region

2.5 million visitors to GPG annually on par with Philadelphia's visitor magnets like the Liberty Bell (2.2 million)

1.3 visitors from out of town

americanpublicgardens.org/economic-impact




AMERICA'S GARDEN CAPITAL

The economic impact of one additional visit to a public garden is \$145/day


Download the full report: www.apga.org/economic-impact

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BARTRAM'S GARDEN


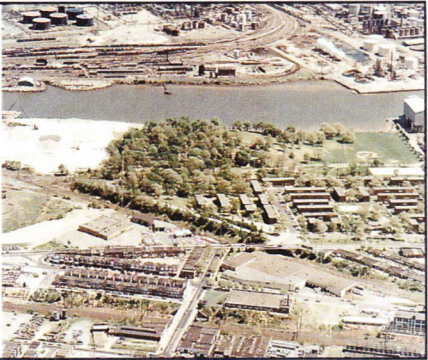
Partnered with the City of Philadelphia's Parks and Recreation Department since 1893



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SOUTHWEST PHILADELPHIA

- 110,000 residents with 49% living below the poverty line.
- 84% African American, with the largest Liberian immigrant population in United States.
- Highly industrialized with less than 1% of tree coverage.

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BARTRAM'S GARDEN: Southwest Philadelphia's Backyard





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SANKOFA COMMUNITY FARM: Rooted in the African diaspora

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TIDAL SCHUYLKILL: Reconnecting with a forgotten river







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BARTRAM'S GARDEN: ANNUAL NUMBERS

- 100,000 visitors
- 10,000 school children - history, science and art lessons
- Fishing and paddling programs for 8,000 participants

Sankofa Community Farm

- 20,000 lbs. of fresh produce
- 3 seasonal farmer markets in the community
- 60 home garden beds built during pandemic

Youth Leadership Program

- 50 summer and 15 year-round internships
- 95% graduation rate compared to 59% at local high school

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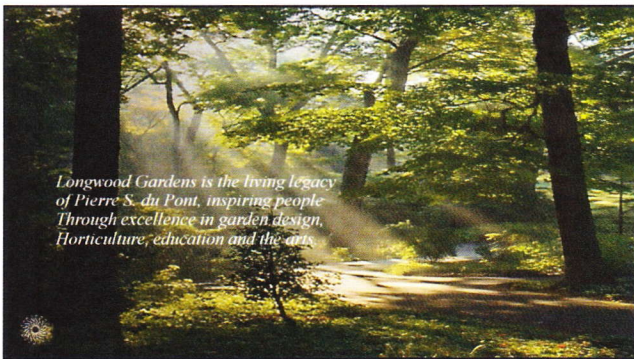
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LONGWOOD GARDENS

Public Gardens Impact on Professional Training, Agriculture, and the Environment

Paul B. Redman, President & Chief Executive Officer
Longwood Gardens

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Reviewed Today

Education & Work Force Development

- Leader in experiential horticulture & public garden training --
- Over 50-years of green collar career, work force & talent development through our cooperative extension experiences, internships, apprenticeships, leadership development & adult education programs.
- Leader of live, virtual K-12 education programs -- present in 44 state & 9 countries including India and The Netherlands.

Environment & Agriculture

- Global outreach & network of horticultural research & plant conservation programs.
- Ex-situ & in-situ plant conservation.
- Sourcing of new germplasm for advancement of new crops & crop improvement.

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Economic & Quality of Life Impact

- PA tourism industry generates more than \$43.3 billion annually from visitor spending & supports over 500,000 jobs.
- Longwood is the #1 visited paid cultural attraction in the 5-county Philadelphia area.
- Institutions like Longwood serve as anchors making our communities more resilient.
- Most visited public garden (paid admissions) in North America.
- Capital investments will support Longwood's annual visitation trajectory, resulting in extensive spin-off effect to the economy.
- Projected West Conservatory \$240 million investment will support more than 4,000 jobs from 2021 to 2024.
- Projected impact on Chester County = \$360M and 3,057 jobs.
- Phase 1 investment already made = \$50 million (financed via tax exempt bonds issued by DCED).

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Impact - Professional Training & Workforce Development

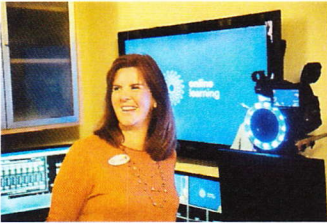
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Professional Programs

- Co-Op Program**
 - High School and Technical College
 - Work experience options across teams
- Discover Program**
 - Special Needs – Chester County Intermediate Unit
 - Work experience with a job coach
- Professional Horticulture Program**
 - Starting a horticultural career, blend of class and work experience
 - Articulated to universities
- Interns & International**
 - Competitive, learning placements across many departments
- RHS/GCA Fellow**
 - Year placement at Longwood for a horticulturist from the UK

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Virtual Field Trips



2020-2021 School Year

19,131 students

Also, Students from Netherlands, India and Kazakhstan

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What does success look like?
 Having a nation where we understand and value the importance of plants and the people who work in the art, science, technology, education and business of horticulture.



My Job Isn't White Collar or Blue Collar

FUTURE

Real Impact 2020

- ✓ 4.56 million middle-schoolers
- ✓ 287,000 visits to Horticultural Career Tool
- ✓ \$7.1 million raised 2016-2021


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Plant Collections at Longwood

- Total Number of Accessions 17,887
- Rare, Endangered or Threatened = 367
- Core Collection of Interest
 - Buxus (Boxwood)
 - Camellia
 - Chrysanthemum
 - Deciduous Azalea (Rhododendron)
 - Magnolia
 - Orchids (Ex Heirloom Cattleya hybrids & cultivars)
 - Nymphaea (Waterlily)
 - Victoria (Water-platter)



Magnolia macrophylla var. ashei

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Global Plant Exploration Program

2014 to Present

- Countries of Interest
 - United States
 - Uzbekistan
 - Vietnam
- Collaboration and capacity building with partners
- Targeted collections acquisition
- Core Collections development
- Supports the Plant Conservation and Plant Breeding Programs




52 countries 70 expeditions 14,426 collections


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Native Orchid Conservation Program - Pennsylvania


- Overarching Program Goals
 - Halt the loss of local and regional orchid diversity
 - Develop seed collections with high conservation value
 - Expand the scope of the Plant Exploration Program
 - Disseminate novel research and germplasm
 - Dispel horticultural myths
- Develop and maintain long-term partnerships for conservation activities
- Develop novel public garden program to establish Longleaf Caddisfly as an internationally recognized orchid conservation expert and seed source




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Valmont Bog
Southeastern Luzerne County
West Hazleton, PA



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Goals

Use as a model for Conservation Horticulture Research


- Yearly surveying
- Protocols for symbiotic and asymbiotic *in vitro* seed germination
- Fungal isolation
- Greenhouse acclimatization
- Ex situ collections development
- Display opportunities

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PHIPPS



Public Gardens Role in Advancing Sustainability

Richard Piacentini, President and Chief Executive Officer
Phipps Conservatory and Botanical Gardens

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Awards

<p>Top Ten Projects The American Institute of Architects Committee on the Environment (AIA COTE)</p> <p>Award of Merit, Beyond Green High Performance Building Awards Sustainable Buildings Industry Council</p> <p>Regenerative Business Prize Not-for-Profit Category The Regenerative Business Alliance</p>	<p>Global Best Project Award, Green Project Category Engineering News-Record</p> <p>Bulldy Award Mid-Atlantic Association of Museums</p> <p>Innovative Star of Energy Efficiency Alliance to Save Energy</p> <p>Design & Build with FSC Award Forest Stewardship Council U.S.</p>	<p>Designer of the Year, International Landscape Design Awards Association of Professional Landscape Designers</p> <p>Green Design Citation American Institute of Architects, Pittsburgh Chapter</p> <p>Sustainability Excellence Award, Programming Category American Alliance of Museums</p>
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Press

"The greenest building in the world."
— Walter Wang, **CleanTechies**

"Recognized as one of the world's greenest buildings."
— Bill Peduto, **The New York Times**

"An amazing example of the reach and impact of a mission in action."
— Melissa Arminio Kops, **Pirie Associates**

"A leader in sustainable building practices has just opened one of the greenest structures in the world."
— Raquel Laner, **Architizer**

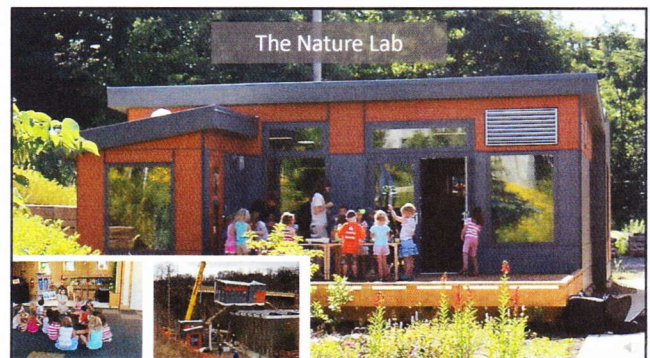
"Encourages the public to discover sustainable ways to connect with nature."
— Jane Berger, **Landscape Architecture Magazine**

"A model of environmentalism... on the forefront of sustainability."
— Mary Grauerholz, **USGBC+**

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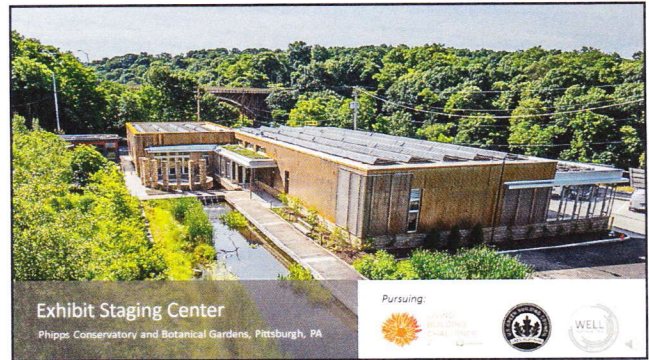
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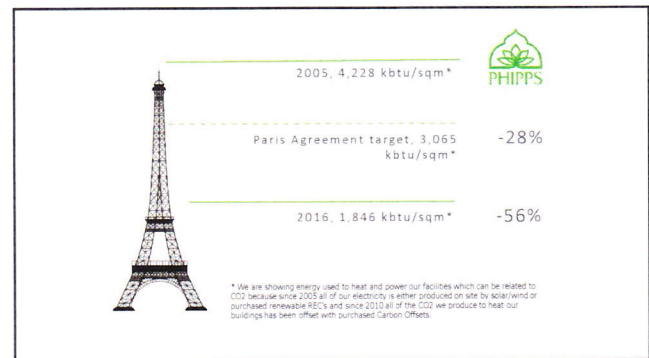
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It's a Journey

- 2005 - 100% Renewable Electricity
- No toxic pesticides
- 2006 - No plastic disposable service ware
- Compost all food waste
- 2009 - No bottled water
- No hormones and antibiotics in meat, no rBST in milk
- Cage free eggs
- 2010 - All carbon produced to heat all our buildings is offset
- 2011 - No soda no junk food in café
- No factory farm meats
- 2015 - All fossil fuel investments reinvested in renewable energy
- 2017 - Socially responsible investments
- 2018 - Focus on reducing single use plastic



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The Climate Toolkit

For Museums, Gardens and Zoos

an opportunity to **SHARE, MENTOR** and **LEARN** with fellow museums, gardens and zoos who want to want to aggressively address climate change in their operations

climatetoolkit.org

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To date, gardens serving more than **32,000,000** annual visitors have joined the Climate Toolkit.

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<p>ENERGY</p> <ul style="list-style-type: none"> • Meet the Paris Climate Agreement Targets for CO2 reduction • Reduce fossil fuel use by 25% • Build all new buildings as zero-energy buildings or Living Buildings • Ensure all building renovations reduce energy use by 25% • Generate or purchase 100% renewable electricity • Offset all carbon from heating <p>FOOD SERVICE</p> <ul style="list-style-type: none"> • Ensure 40% of food service menu selections are vegan or vegetarian • Make 10% of all food purchases within 100-mile radius of site <p>TRANSPORTATION</p> <ul style="list-style-type: none"> • Offset carbon for all work-related staff travel • Make 25% of vehicle fleet electric (excluding tractors) • Incentivize employees to carpool, bike, bus or otherwise forgo single-occupant car transportation to work • Incentivize visitor sustainable travel 	<p>WASTE</p> <ul style="list-style-type: none"> • Eliminate all single-use plastic in food service, horticulture, gift shop, and all other facilities and operations. • Compost 100% of food waste • Eliminate sale and use of bottled water • Recycle or reuse all recyclable materials including metals, glass, and plastic throughout the conservatory <p>WATER</p> <ul style="list-style-type: none"> • Reduce use of municipal water by at least 25% • Reduce potable water for irrigation by at least 25% <p>LANDSCAPES AND HORTICULTURE</p> <ul style="list-style-type: none"> • Ensure 25% of all lawn/garden maintenance equipment is electric • Ensure 50% of pesticides and fertilizers used are fossil-free • Reduce lawn areas by 10% and encourage native plant replacements • Support reforestation to sequester carbon • Convert parking spaces into greenspaces to combat rising temperatures in cities 	<p>INVESTMENTS</p> <ul style="list-style-type: none"> • Divest from fossil fuel investments • Invest in socially responsible investments <p>VISITORS</p> <ul style="list-style-type: none"> • Assist visitors in switching to household renewable energy • Educate visitors on sustainable, fossil-free horticulture • Educate visitors on growing organic food • Educate visitors on the impacts of food choices and waste on climate change • Teach facts and best practices to mitigate and reduce global climate change <p>RESEARCH</p> <ul style="list-style-type: none"> • Conduct region-specific research related to climate change
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**American
Public Gardens
Association**
PROUD MEMBER

**The American Public Gardens Association
has 35 member public gardens in
the Commonwealth of Pennsylvania**

THESE GARDENS

Have combined operating budgets
over \$164 Million;

Employ
over 2000 FTE
employees;

and Welcome
over Four Million visitors
annually.

Allegheny Arboretum at Indiana University of Pennsylvania

Ambler Arboretum of Temple University

Arboretum at Laurel Hill and West Laurel Hill Cemeteries

Arboretum at Penn State

Arboretum at Penn State Behrend

Awbury Arboretum

Barnes Arboretum at Saint Joseph's University

Bartram's Garden

Bowman's Hill Wildflower Preserve

Brandywine Conservancy & Museum of Art

California University of Pennsylvania

Cedar Crest College

Chanticleer

Goodell Gardens & Homestead

Haverford College Arboretum

Henry Foundation for Botanical Research

Hershey Gardens

Hortulus Farm

James G. Kaskey Memorial Park

Jenkins Arboretum & Gardens

Longwood Gardens, Inc.

Millbourne

Morris Arboretum of the University of Pennsylvania

Phipps Conservatory and Botanical Gardens

Pennsylvania Horticultural Society

PHS Meadowbrook Farm

Pittsburgh Botanic Garden

Pittsburgh Parks Conservancy

Scott Arboretum of Swarthmore College

Shofuso Japanese House and Garden

Stoneleigh: A Natural Garden

Tyler Arboretum

Welkinweir

Willows Park Preserve



www.publicgardens.org



Our Vision: A world where public gardens are indispensable.

Our Mission: We champion and advance public gardens as leaders, advocates, and innovators in the conservation and appreciation of plants.

The American Public Gardens Association is the leading professional organization for the field of public horticulture. We are committed to helping our members succeed by sharing and encouraging best practices, offering educational and networking opportunities, and advocating for public horticulture throughout the world. We provide the tools and support that public horticulture professionals need to serve the greatest number of people and celebrate the world of plants creatively and sustainably.

The American Public Gardens Association:

- **Connects** the field of public horticulture to strengthen collaboration and to enhance its impact.
- **Protects** our natural heritage and ensures the future of public horticulture through pioneering programs and advocacy.
- **Champions** the role of public horticulture in improving the quality of life for all.

We represent approximately 600 institutions that draw over 120 million visitors annually and are located throughout the United States, Canada, Mexico, and 20 other countries. While the combined operating budgets of Association member gardens in the US is more than \$2.5 Billion (USD), their impacts on the communities is even more expansive: tourism destinations, horticultural education focal points, regional beautification and conservation efforts, as well as providing cultural enrichment and accessible nature for all. Over 9,700 individuals are members, and they support public horticulture and advance the best practices of our industry.

Association programs have several thrusts, each linked to conservation, community, and connectivity.

Plant collections and conservation programs include the Plant Collections Network, which originated 23 years ago as a partnership with USDA - Agricultural Research Service. To date, 147 Nationally Accredited Plant Collections™ have been recognized and standards / best practices for collections care developed. In addition, over the past 5 years over \$100,000 in funding has been provided for almost 30 plant scouting and collecting trips to establish living gene banks of unique tree species through the USDA - US Forest Service.

The Plant Protection Program, includes the Sentinel Plant Network - an invasive species education program that was co-founded with the National Plant Diagnostic Network and USDA's APHIS (Animal Plant Health Inspection Service) which has provided free training to over 450 garden employees at over 300 participating gardens. Surveys to compensate gardens as they scout for invasive pests and diseases and report their findings is its other important attribute.



PublicGardens.org

Another part of the Plant Protection Program is Plant Heroes (plantheroes.org), a collaboration with the USDA - US Forest Service that provides free educational content in multiple languages to educators and others to get young learners excited about nature, teach them about the importance of plants, and engage them in protecting urban forest health.

The Climate & Sustainability Alliance hosts several thrusts including the Public Garden Sustainability Index, designed to elevate and recognize the leadership of public gardens in 12 different attributes covering environmental, economic, and community health categories.

Recently updated for 2020, the Sustainability Index has already recognized 13 gardens for industry leadership, with many gardens gaining achievement in its different attributes.

Through 2020, *National Public Gardens Week/Day* has become internationally celebrated, featuring more than 200 participating gardens that offer hundreds of events, continually gaining traction across social media and news outlets. This week-long celebration has served as a direct connection between public gardens and their local communities, engaging and attracting many new guests who have never set foot in a garden previously.

Our members stay connected and gain knowledge from each other through 21 professional communities and an extensive library/media center, developing lasting relationships and networks. Workshops and professional development symposia are frequently offered, as well as an innovative and vital Annual Conference that generates more than 2.5 million dollars in economic impact to each city it visits across the country, hosting more than 1100 attendees at its most recent live event, and more than 1300 attendees for the 2020 Virtual Annual Conference.

Our 80-year track record of convening and educating the public horticulture community helps offer a unified voice for public horticulture. We advocate for the work of the industry in addressing issues from the role of public horticulture in the nation's economy, to its vital role in conservation. We employ a state-of-the-art formal benchmarking platform which over the past 5 years has provided data that yields insight into garden finances, educational impacts, visitation and staffing, as well as Plant Conservation and Biodiversity. Our advocacy is performed with timely and strategic data to leverage funding, recognition and support.

The American Public Gardens Association celebrates the importance and impact of public gardens as community resources and catalysts for change and resilience. The Association's new 2020-2024 strategic plan calls for "*a world where strong gardens build resilient communities.*" Key plan objectives such as the desire to attract and engage diverse membership and to expand and enhance member benefits and resources are some of several pillars of that plan. The goal is to raise the profile of the critical role plants play in our lives and the importance of public horticulture to an ever larger audience.