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NYBG's New Science Exhibition *What in the World is a Herbarium?* Celebrates One of the World's Greatest Plant Research Collections

On View from March 4 to October 29, 2017, the Exhibition Showcases the Central Role Of NYBG's Steere Herbarium in Discovering and Saving the World's Plant Biodiversity



Herbarium specimens (left) of *Amorphophallus titanum*, or corpse flower, that attracted more than 30,000 visitors to NYBG in summer 2016 (right). One of the specimens will be on display as part of *What in the World is a Herbarium?*

Bronx, NY—Celebrating one of the world's greatest research collections of plant specimens, the exhibition *What in the World is a Herbarium?* showcases the central role that the collection plays in the critically important plant research that takes place every day behind the scenes at The New York Botanical Garden. The exhibition, the first ever to focus on the Botanical Garden's William and Lynda Steere Herbarium, will be on view in the Garden's Ross Gallery from March 4 through October 29, 2017.

With a wide variety of rare and fascinating plant specimens and compelling videos and displays about NYBG scientists who are discovering and saving plants around the world, *What in the World is a Herbarium?* shows how the Steere Herbarium, the largest in the Western Hemisphere and the second largest in the world, is the centerpiece of the Garden's botanical research program. Among other uses, the Herbarium is an essential resource for scientists worldwide who are working to save Earth's diverse plants and fungi from the threats created by climate change, including habitat loss and the spread of invasive species.

Containing more than 7.8 million preserved plant and fungal specimens, the Herbarium has been lauded by the National Science Foundation as a "national treasure." Its collection of specimens from every continent, including Antarctica, constitutes an irreplaceable record of the plant life, past and present, that sustains life on Earth.



This herbarium specimen was collected from an American chestnut tree (*Castanea dentata*) in the Bronx in 1891. Chestnut blight has since decimated this beautiful and once-common species.

What in the World is a Herbarium? tells the story of how Garden scientists collect plant specimens from as near as New York City's Central Park and the Garden itself to as far away as the remotest regions of Amazonia in South America and the pristine forests of northern Myanmar in Southeast Asia. Displays explain how these specimens are pressed and dried, usually by the scientists in the field, and then, after arriving at the Herbarium, are mounted on archival paper, labeled with extensive information about when and where they were collected, and then stored in climate-controlled conditions to preserve them for future study.

Using examples from current Garden research projects, exhibition displays demonstrate that meaningful research about plant biodiversity, ecology and conservation would be impossible without herbarium specimens. They play an increasingly important role in research to predict and possibly mitigate the worst impacts of climate change and other environmental

issues. Herbarium specimens are also frequently the source of plant DNA, which is analyzed to understand how plants have evolved and developed on Earth. In addition, they are studied by ethnobotanists, who research how people around the world use plants, and by scientists who are helping local communities develop sustainable forestry and agricultural practices.

Apart from their scientific value, many specimens featured in *What in the World is a Herbarium?* are remarkable for their beauty, historical associations, or exotic qualities. The exhibition marks the public return of one of last year's star attractions at the Garden, an *Amorphophallus titanum* or corpse flower. The notoriously pungent plant bloomed in July 2016, attracting 30,000 visitors and 1.7 million views of the Garden's live YouTube channel. It is now preserved as a herbarium specimen. A leafy American chestnut tree specimen (*Castanea dentata*), collected in 1891, the year the Garden was founded, is a heartbreaking reminder that these giant trees were once magnificent features of the eastern American landscape. A few years later, a Garden scientist discovered that chestnuts at the Bronx Zoo were afflicted with chestnut blight, an invasive Asian fungal disease. Spreading quickly, it killed up to 4 billion trees within 50 years, reducing the chestnut to isolated pockets.

A section of the exhibition is devoted to a collection that is considered one of the gems of the Herbarium, the more than 80 fungi specimens collected by scientist George Washington Carver during his pioneering research to diagnose the fungal diseases that harm food crops. Carver's specimens include samples of fungi found on grape, quince, and indigo leaves.

Exhibition Spotlights Current Project to Digitize NYBG's Herbarium Specimens

Connecting the Herbarium to the scientific research that takes place every day at the Garden, a series of videos follows plant specimens from the field to NYBG. Using a touch screen, visitors can view their choice of videos about how Garden scientists travel the world to collect plants, how specimens are processed to become part of the Herbarium, how scientists use specimens to identify plants and document the discovery of new species, and how the Garden shares the Herbarium's wealth of specimens through collaboration and digitization.

Although the process of preserving plants has remained unchanged for hundreds of years, *What in the World is a Herbarium?* also shows visitors what is new at the Herbarium—such as an ambitious project to digitize its holdings, making high-resolution images and specimen data freely available to the public and researchers via the Garden's [C. V. Starr Virtual Herbarium](#). With millions of specimens already online, Herbarium staff and volunteers are adding 30,000 new records every month.

Revealing and informative, *What in the World is a Herbarium?* offers visitors a rare, limited-time opportunity to discover what makes the Garden's world-class research collection an indispensable part of its work to discover and defend the world's plants. For more information about the William and Lynda Steere Herbarium, visit the Herbarium's [Web page](#).

Opening Weekend Programs for *What in the World is a Herbarium?*

To mark the opening of *What in the World is a Herbarium?*, the Garden will hold a wide-ranging symposium, *Entwined: Plants, Exploration, and Our Future*, at 10 a.m. on Friday, March 3, in Ross Hall. The symposium will focus on the crucial role that exploration plays in understanding the entwined relationship between plants and the well-being of humans and ecosystems. *Entwined* will feature presentations by Garden scientists who work in locations around the world, followed by a panel discussion and question-and-answer session. After the symposium, attendees will be invited to the Ross Gallery for a preview of *What in the World is a Herbarium?* and to take guided tours of the Steere Herbarium. (Member \$10/Non-Member \$20; to register, go to nybg.org/AdultEd or call 800.322.6924.)

**BOTANICAL GARDENS
STUDY PLANTS**

Our Mission: Science-Based Conservation

More than ever, the world's plants are threatened by climate change and habitat destruction. The first step in plant conservation is to know and document the plants of the world: their names, where they grow, and how to identify them.

BIODIVERSITY
Biodiversity is the variety of living things, including microorganisms, animals, fungi, and plants. Every living thing plays a role within an ecosystem. Healthy ecosystems provide people with necessary resources, clean water and air, and other essential services. When species disappear, the environment's health and resilience are threatened.

IDENTIFYING SPECIES AT RISK
Botanists sample through lists of the plants growing in specific areas, collect plant specimens and document their findings, and cover detailed maps of each plant's native range. Plants that grow only in a very small area, or those with shrinking populations, may be at risk of extinction, threatening biodiversity.

CONSERVATION PLANNING
Scientists analyze how the distribution of plant species has changed over time in order to predict how plants will be affected by environmental change, such as sea level rise and changes in rainfall patterns. They use this information to engage people and governments all over the world in the sustainable management of natural resources at risk of loss from overuse, climate change, and other factors.

Informative and engaging text and photos, such as this display about NYBG's science-based conservation efforts, help visitors to understand the central role herbarium specimens play in plant research.

On Saturday, March 4, a film screening and lecture will begin at 11 a.m. in Ross Hall. The short documentary *Look Who's Minding the Planet* shows how the Garden's Lewis B. and Dorothy Cullman Program in Molecular Systematics works to understand the evolution and development of plant life and educate the next generation of plant scientists. Following the screening, Barbara M. Thiers, Ph.D., the Garden's Vice President for Administration, Global Plant Research and Conservation Division, and the Patricia K. Holmgren Director of the Steere Herbarium, will talk about the importance of herbaria as sources of plant information and how they evolved from their beginnings as a storage method for medicinal plants. After the presentation, guided tours of the Herbarium will be available.

What in the World is a Herbarium? and *Entwined* are made possible in part by the Institute of Museum and Library Services [MA-10-15-0133-15].

About the Institute of Museum and Library Services



The Institute of Museum and Library Services is the primary source of federal support for the nation's 123,000 libraries and 35,000 museums. Our mission is to inspire libraries and museums to advance innovation, lifelong learning, and cultural and civic engagement. Our grant making, policy development, and research help libraries and museums deliver valuable services that make it possible for communities and individuals to thrive. To learn more, visit www.imls.gov and follow IMLS on [Facebook](#) and [Twitter](#).

About The New York Botanical Garden

The New York Botanical Garden is a museum of plants, an educational institution, and a scientific research organization. Founded in 1891, the Botanical Garden is one of the world's preeminent centers for studying plants at all levels, from the whole organism down to its DNA. Garden scientists conduct fundamental research on plants and fungi globally, as well as on the many relationships between plants and people. A National Historic Landmark, the Garden's 250-acre site is one of the greatest botanical gardens in the world and the largest in any city in the United States, distinguished by the beauty of its diverse landscape and extensive collections and gardens, as well as by the scope and excellence of its programs in horticulture, education, and science. Learn more: nybg.org

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The New York Botanical Garden is a museum of plants located at Bronx River Parkway (Exit 7W) and Fordham Road. It is easy to reach by Metro-North Railroad or subway. The Garden is open year-round, Tuesday through Sunday and Monday federal holidays, from 10 a.m. to 6 p.m. The best way to enjoy the Garden is with the *All-Garden Pass*, which includes admission to the grounds as well as to seasonal gardens, exhibitions, and attractions such as the Enid A. Haupt Conservatory, Everett Children's Adventure Garden, and Tram Tour. For ticket pricing, please check our Web site. For more information, please call 718.817.8700 or visit www.nybg.org

The New York Botanical Garden, 2900 Southern Boulevard, Bronx, New York 10458

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

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