NATIONAL MUSEUM of NATURAL HISTORY

THE PLANT PRESS

Department of Botany & the U.S. National Herbarium

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Herbarium specimen preparation for all!

By Erika M. Gardner & Gary A. Krupnick

Thursday, July 17, 2025, was an extremely hot and humid evening, with a heat index of 105 degrees, yet despite the oppressive heat, attendees patiently lined up for the first 2025 Q?rius After Hours program for adults at the National Museum of Natural History (NMNH), in the Coralyn W. Whitney Q?rius Science Education Center. The doors promptly opened at 6:30 pm. The public checked-in at the registration table and were given two hours to explore the Q?rius collection and various activities at their leisure. Attendees could play board games, solve puzzles, or interact with participating scientists from the museum and affiliated organizations. The event provided space for adults to explore science with "childlike wonder, to reduce stress, sustain optimism, and safely take risks at something new," per the online event announcement.

At this event, the Department of Botany showcased for the first time a hands-on specimen preparation activity for the public. Participants were offered an opportunity to archivally prepare a plant specimen for the herbarium. For the past few decades specimens have been prepared by dedicated museum volunteers. These volunteers work on weekdays, Monday through Thursday, during museum business hours.

At the After-Hours event, Botany volunteers trained attendees and oversaw the quality of each specimen as it was being prepared. After a participant completed a specimen, the specimen sheet number was recorded and matched to the participant's email address. In total, 65 people attended the program, 35 participated in the herbarium specimen activity and in two hours, 38 specimens were prepared. In about six months, these specimens would be digitized and viewable online. To commemorate each participants' contribution to the permanent collection, participants receive an email with a link to a high-resolution image of their specimen that can be downloaded as a keepsake and shared with family and friends.

Earlier this year, Erika Gardner, Museum Specialist, mentioned to Agustin Baldioli, Lead Volunteer Coordinator at

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The Department of Botany showcased for the first time a hands-on specimen preparation activity for the public.

Preparation

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NMNH, about wanting to engage with the public via outreach utilizing botany specimens and volunteers. Baldioli put Gardner in contact with Amanda Sciandra, Adult Programming Manager in the NMNH Office of Education, Outreach, and Visitor Experience (EOVE). Fortuitously, Sciandra had an after-hours program series for adults scheduled for the summer and agreed to provide space at the event for the Department of Botany to host a specimen preparation activity. If all went well, Sciandra would decide if botanical specimen preparation would be included in future after-hour programs. Fortunately, Gardner's vision proved successful. Shortly after the first event, a survey was sent to participants. The responses were overwhelmingly positive, and the feedback provided concrete support to continue this program and herbarium activity.

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Chair of Botany
Jun Wen
(wenj@si.edu)

Curator of the Herbarium
Eric Schuettpelz
(schuettpelze@si.edu)

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On the cover: ***An attendee prepares a plant specimen at the NMNH Q?rius After-Hours educational program on August 13, 2025. (photo by Gary Krupnick)***

The Smithsonian Institution's National Museum of Natural History (NMNH) hosts a Q?rius After-Hours event, an educational program for adults, on the evening of September 24, 2025. The program featured NMNH collections specimens, crafts, puzzles, games, and featured experts. Designed to encourage the incorporation of fun and play into learning experiences, this program connects participants to the natural world through self-paced activities including the preparation of botanical specimens. (photo by Gary Krupnick)

The idea to bring herbarium specimens to the public to prepare entered Gardner's mind back in March. While reviewing applications for new Botany specimen preparation volunteers, Gardner noticed a glaring trend—many of the applicants were currently enrolled at a university, recent college graduates, or recently furloughed/fired from government or non-profit jobs.

Gardner received over 40 volunteer applications, interviewed 25, and by April, accepted 23. It took over three months to complete the onboarding process and by June, 21 volunteers were trained to prepare herbarium specimens. After this training process, Gardner had an idea; in addition to in-house plant mounting volunteers, the museum could host large scale specimen preparation workshops too. These museum events would chip away at the backlog of unmounted specimens, increase data visibility online for researchers, and most importantly, these workshops would build community and connect the public to the collection.

Question: Why does the Department of Botany need so many preparation volunteers and specimens? The answer: Because the US National Herbarium (US) has an estimated 500,000 unmounted specimens in the backlog. According to the NMNH Office of the Associate Director of Science and Chief Scientist (ADCS), one of the 2025 fiscal year goals include, "making significant progress on Departmental collections priorities, specifically backlogged collections and collections data (especially georeferenced and dark data in collections- i.e. collections that are not digitally discoverable rather than dark taxa)." On average, the Department mounts about 11,000 specimens a year. The number of acquired specimens exceeds processed specimens: 12,000 to 15,000 unmounted specimens are acquired annually, either via donations from various herbaria (gifts and exchanges) or departmental staff collections. As a result, the backlog continues to expand.

The backlog has been growing for decades. In a 2003 article, "The Importance of Herbaria" (*Plant Scientist Bulletin* 49(3): 94-95), Vicki Funk states, "At the US National Herbarium, in order to make maximum use of our substantial resources, we have the following goals: …processing of the backlog of unmounted specimens so all material is available…" As of 2025, the US National Herbarium is in an excellent position to process the gargantuan backlog: digitization advancements and effi-

cient workflows are now a seamless part of the herbarium's daily operations. After specimens are mounted, they are given to the digitization team for imaging and cataloging. Within a few months, the specimen data are available online via the Department of Botany's Collections Catalog (https://collections.nmnh.si.edu/search/botany/). The US National Herbarium completely digitized its mounted plant collection as of May 2022. A seven-year effort to digitize the herbarium resulted in 3.8 million new images, 2.8 million new label transcriptions and over 80,000 new taxonomic names added to the data catalog. Full digitization improves collections management and enhances the preservation of the collections. As of September 2025, the Department of Botany's collections online catalog has over 4.56 million records.

Gardner recently described how two professional conferences presented similar messages about the future of botanical collections (*The Plant Press* 28(3): 9): digitization and collaboration are keys to unlocking new discoveries by means of interacting with new audiences. With the herbarium's robust digitization capabilities to keep pace with newly mounted specimens, Gardner realized it was the perfect time to engage broader audiences with the US National Herbarium through outreach. Instead of keeping to tradition and only allowing specimen preparation to happen by a small handful of volunteers, now was the perfect time to engage new audiences to prepare herbarium specimens.

After the first specimen preparation activity on July 17, Sciandra reached out to Gardner to see if the Department of Botany wanted to participate in the next After-Hours program on August 13. Fortunately, Botany's volunteers were enthusiastic to participate again. One volunteer said, "I feel so special, when they [attendees] ask me if I am a volunteer here; I am proud to say I am." The After-Hours program provides volunteers with an opportunity to interact with visitors and to be a part of something bigger by contributing not just to the Department of Botany, but with the wider museum community.

Sciandra provided a larger space for the plant mounting activity at the second after-hours event. The activity was moved to the more spacious Q?rius Theater. As the Q?rius doors opened, participants headed straight to the Theater. Seats filled up almost immediately, and the volunteers jumped into action. The botanical theme for the evening was ferns. Eric Schuettpelz, Research Curator of Ferns, volunteered too. Schuettpelz walked around the room interacting with participants by providing facts about ferns. It was an extra special evening having Schuettpelz in attendance. Other staff members from the Department of Botany also volunteered. Gary Krupnick, of the Plant Conservation Unit, checked in participants, and Rose Gulledge, from Research and Collections, delivered specimens to participants at their tables. Alice Tangerini, NMNH Botany Illustrator for over 51 years, participated by preparing her first specimen ever, a shoestring fern! It was an energizing night for volunteers, museum staff, and participants.

During the larger August event, about 70 people attended, of which 58 specimens were prepared by 51 participants in two hours. The success of the event was proven by the post-program survey responses. In one survey question, "thinking about the number one highlight of the program for you, tell us in your own words what aspect was most significant," an anonymous response was, "Being able to help preserve specimens! Everything was fantastic but this was a highlight to be able to help support the museum." In fact, many attendees were excited that their work that evening would become a permanent record in the museum. Most arts-and-crafts activities result in throwaway pieces, but this activity results in objects that will be used by scientists for decades.

After the second program, Sciandra asked Gardner to participate in the next two after-hours program on September 24 and December 16, in which the Botany volunteers were eager to participate again. The September event had the theme of National Public Lands Day. Specimens selected to be mounted were from the Seeds of Success (SOS) program, voucher specimens collected from public lands managed by the U.S. Bureau of Land Management (BLM). The December event had the theme of "National Chocolate-Covered Anything Day", with participants mounting specimens from the plant family Malvaceae. In addition to volunteers and Department of Botany staff, post-doctoral fellows attended both events.

When the Q?rius doors opened in September, a participant bee-lined to the theater. When they got to the specimen preparation station, they expressed how excited they were to be the first person through the door. They mentioned that this was their third time participating in the specimen preparation activity and they had been anxiously waiting a whole month to do it again. It was beyond heartwarming

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An attendee prepares a plant specimen at the NMNH Q?rius After-Hours educational program on September 24, 2025. (photo by Gary Krupnick)

Preparation

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for the volunteers and Botany staff to hear this participant express their love for preparing herbarium specimens. Several other attendees were return guests, some bringing their friends to join in the fun. In September, 75 people attended and 58 specimens were prepared by 58 participants. In December, 35 people attended and 33 specimens were prepared by 32 participants.

Word-of-mouth is spreading about the After-Hours plant-mounting event, and attendees are wanting to mark their calendars for the next scheduled occasion. The attendees get to sharpen their creative skills, learn about the importance of botanical collections, enjoy time with friends, be a part of a community, and contribute to science.

After four successful after-hours programs, and with a never-ending backlog of specimens, the Department of Botany is preparing to host a special specimen preparation event for the 250th anniversary of the signing of the Declaration of Independence. The event will focus on reaching a goal of 250 mounted specimens in one night. The date is yet to be determined, but with plenty of time to prepare, the Department of Botany will be ready to host this extra special event.

Clockwise from top left: Smithsonian staff, post-doctoral fellows, and volunteers participate and supervise attendees during the NMNH Q?rius After-Hours educational program on September 24, 2025. A proud attendee displays a specimen that she prepared during the event on July 17, 2025. Participants learn how to prepare plant specimens during the event on December 16 and September 24, 2025. (photos by Amanda Sciandra, Peng Gao, Erika Gardner, and Gary Krupnick)

EDITOR'S NOTE G.A. Krupnick

Shutdown shutters Smithsonian

On October 1, 2025, the U.S. government failed to pass appropriation for the fiscal year, shutting down the government for 43 days, the longest in U.S. history. The Smithsonian Institution, using prior year funds, was able to stay open and operational until midnight, October 11. Since the government shutdown continued past the 11th, the Smithsonian closed to the public and officially shut down on October 12 resulting in the closing of the Smithsonian Institution, all its museums, research centers, and the National Zoo. All federal staff were furloughed. The effect of the shutdown was significant on the activities of the U.S. National Herbarium and the livelihood of its workforce.

Most Botany Department staff members were sent home in a non-duty and non-pay status. Due to the Anti-Deficiency Act, we were specifically instructed not to conduct work at our workplace or any alternative worksite. We were not permitted to continue our research as an unpaid volunteer, and thus all studies were halted. Federal employees were not permitted to use or access any Smithsonian system including email, and we could be subjected to fines and legal actions for doing so. Employees were prohibited from using all Smithsonian issued equipment, including mobile devices and laptops. Visiting researchers, post-doctoral fellows, and graduate students who had planned to work in the herbarium and labs suddenly found that they could not access the important facilities and resources.

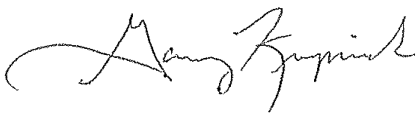
Signage on the doors of the Smithsonian's National Museum of Natural History informs staff and visitors that all museums and the National Zoo are closed due to the government shutdown. (photo by Gary Krupnick)

All staff travel and meetings at the National Museum of Natural History and elsewhere were canceled, postponed, or rescheduled. Researchers found themselves unable to participate and speak at scheduled workshops, meetings, and symposia, even within a volunteer capacity.

For the skeleton crew of Excepted Federal Employees that were deemed essential to protect buildings and collections, they came to the museum each day to assure the safety and security of the specimens and artifacts. The crew found the halls empty and dark, which contrasted starkly to the usual lively and vibrant atmosphere of the museum. We are grateful to **Jun Wen**, **Eric Schuettpelz**, and **Sue Lutz**, who monitored the U.S. National Herbarium during our forced absence, and to **Carl Johnson** and **Byron Gwinn** (weekend watering contractor) who kept the living collections at the Research Greenhouses well-watered and healthy.

Due to the shutdown, *The Plant Press* editor and the Department Chair decided to cancel *The Plant Press* October 2025 issue (Vol. 28, No. 4). All content that was scheduled to appear in that issue is now shown here in the January 2026 issue (Vol. 29, No. 1) with new additional content.

On the evening of November 12, 2025, the president signed an appropriations bill that funded the government at existing spending levels until January 30, 2026. Botany staff, fellows, and visitors returned to the museum on November 13, eager to get back to work. Fortunately for the Department's federal workforce, retroactive pay provisions were granted. Regrettably, the Department's contractors are left without pay for that same period. Here's hoping that another shutdown does not occur this winter.



Retirements

Pedro Acevedo, 2013. (unknown photographer)

Pedro Acevedo-Rodríguez retired in July 2025 after 36 years of service at the Smithsonian Institution. He joined the Department of Botany at the Smithsonian's National Museum of Natural History (NMNH) in March 1989, first as an Assistant Curator and then promoted to Associate and full Curator. His work at the Smithsonian focused on three main, often-interconnected themes: (1) taxonomy and systematics of Neotropical Sapindaceae, (2) floristic diversity and biogeography of the West Indies, and (3) Neotropical climbing plants. He is the author or coauthor of 77 peer-reviewed articles and book chapters, in addition to 7 books. Within those publications he is the taxonomic author of 80 new taxa, mostly of Sapindaceae, including two new genera *Alatococcus* and *Allophylastrum*. For two of those larger publications—"Melicocceae (Sapindaceae) Melicoccus and Talisia," *Flora Neotropica*, 87: 1-179, 2003; and *Bejucos y plantas trepadoras de Puerto Rico e Islas Virgenes*, Smithsonian Institution, 2003—he won the 2003 NMNH Science Achievement Award.

Acevedo received a B.S. from the University of Puerto Rico in 1977 and a Ph.D. from the City University of New York (CUNY) in 1989, with the New York Botanical Garden curator and renowned tropical botanist Scott Mori as his advisor. His dissertation on *Serjania* (published in the *Memoirs of the New York Botanical Garden* 67: 1-96, 1993) set the stage for a lifelong passion for neotropical Sapindaceae and tropical climbers more broadly. One of his most significant recent projects has been synthesizing this knowledge with collaborators in the book-length monograph, "Families and genera of climbing plants in the Neotropics" (*A Smithsonian Contribution to Knowledge*, 2025) which covers 109 families and 735 genera.

Besides using traditional systematics approaches to document climbing plants, Acevedo has been interested in the evolution of climbing mechanisms and stem structure adaptations that are potentially correlates of diversification, especially for species-rich clades within Sapindaceae. Those adaptations include specialized climbing structures like hooks and tendrils, as well as stems with many types of anomalous secondary growth. Collecting woody stem sections of lianas and illustrating their structure in publications became important aspects of Acevedo's research.

In addition to his work on climbers, Acevedo is deeply interested in Caribbean botany including its floristics, complex biogeography, evolution, and history of its botanists. Especially important to the botanical community is his "Catalogue of seed plants of the West Indies" (Acevedo-Rodríguez & M.T. Strong, *Smithsonian Contributions to Botany* 98: 1-1192, 2012), which has been continued as an updated and searchable online compendium (https://naturalhistory2.si.edu/botany/WestIndies/catalog.htm) and provides an authoritative list of accepted species, synonymy, distributions, and common names for the over accepted 12,000 taxa in the flora and over 30,000 names treated.

Acevedo has been a mentor of graduate students and post-docs and a strong supporter of visitors to the U.S. National Herbarium, especially for the past 15 years as chair or co-chair of the Botany Travel Award Committee, which awards fellowships to do research in the herbarium. He was a long-time member of the boards guiding major floristics projects, including

Pedro Acevedo teaching an Organization for Tropical Studies (OTS) workshop on lianas at La Selva Biological Station in Costa Rica, July 2022. (photo by Mauricio Bonifacino)

Flora Neotropica Organization and Flora of the Guianas Consortium.

He has widely collected throughout the Neotropics from Central America (Mexico, Panama), the Caribbean (Dominican Republic, Jamaica, Puerto Rico), and South America (Brazil, Colombia, French Guiana, Peru, Suriname), and Africa (Madagascar). He also has significantly added to the U.S. National Herbarium wood collection. Acevedo has seven species named for him in six different families (but no Sapindaceae) for which he made the type collections.

Acevedo's interest in wood extends to a hobby of fine woodworking and building furniture from exotic tropical woods. In retirement, while continuing as a Research Associate and finishing the Sapindaceae for Flora Mesoamericana, he is moving back to Puerto Rico where he plans to grow tropical plants and continue studying Caribbean botany to produce a practical manual and account of the botanical history for the flora of Puerto Rico. His famous sangria will be much missed at social events. Also see his prior curator profile in *The Plant Press* 6(1): 1, 11; 2003.

Pedro Acevedo, 2009. (unknown photographer)

The 23rd National Botanical Symposium to explore 250 years of American Botany

The Smithsonian's National Museum of Natural History Department of Botany, the United States Botanic Garden, and Smithsonian Gardens will hold the 23rd National Botanical Symposium (formerly Smithsonian Botanical Symposium), **"American Botany: 250 years of Discovery and Change,"** on May 29, 2026.

The 18th century not only saw the founding of our nation but also the founding of American botany as it transformed from European explorers looking for plants to supply European gardens, to a new age of homegrown botanists and horticulturists. The American government sent out expeditions to explore the expanding frontier and bring back plants and document indigenous knowledge about them. America has a unique flora that has undergone dramatic changes in composition and distribution. From indigenous people managing land with fire, to the 20th century loss of keystone species like American chestnut to disease, our national flora has changed enormously as a result of land use and movement of people. These changes have brought great biological, cultural, and economic impacts. Botanical research is in an exciting era of big data with cutting-edge technology. New plant species continue to be discovered in the U.S. and the environmental processes that make and shape our flora are increasingly understood. The Symposium will celebrate the centuries of efforts and successes to document and explain our flora with speakers who provide insight into research on the plants, biomes, history, and botanical exploration of the United States.

In addition, the 23rd José Cuatrecasas Medal for Excellence in Tropical Botany will be awarded at the Symposium to an international scholar who has contributed significantly to advancing the field of tropical botany. The award is named in honor of Dr. José Cuatrecasas, a pioneering botanist who spent many years working in the Department of Botany at the Smithsonian and devoted his career to plant exploration and taxonomy in tropical South America.

The Symposium will feature invited speakers giving afternoon presentations in the Q?rius Science Education Center of the National Museum of Natural History (NMNH) in Washington, D.C., for both in-person and virtual guests. The talks will be followed by a poster session and evening reception for in-person guests at the Conservatory of the U.S. Botanic Garden.

Ancient whole genome duplication events influenced the evolution of the ginseng family (Araliaceae)

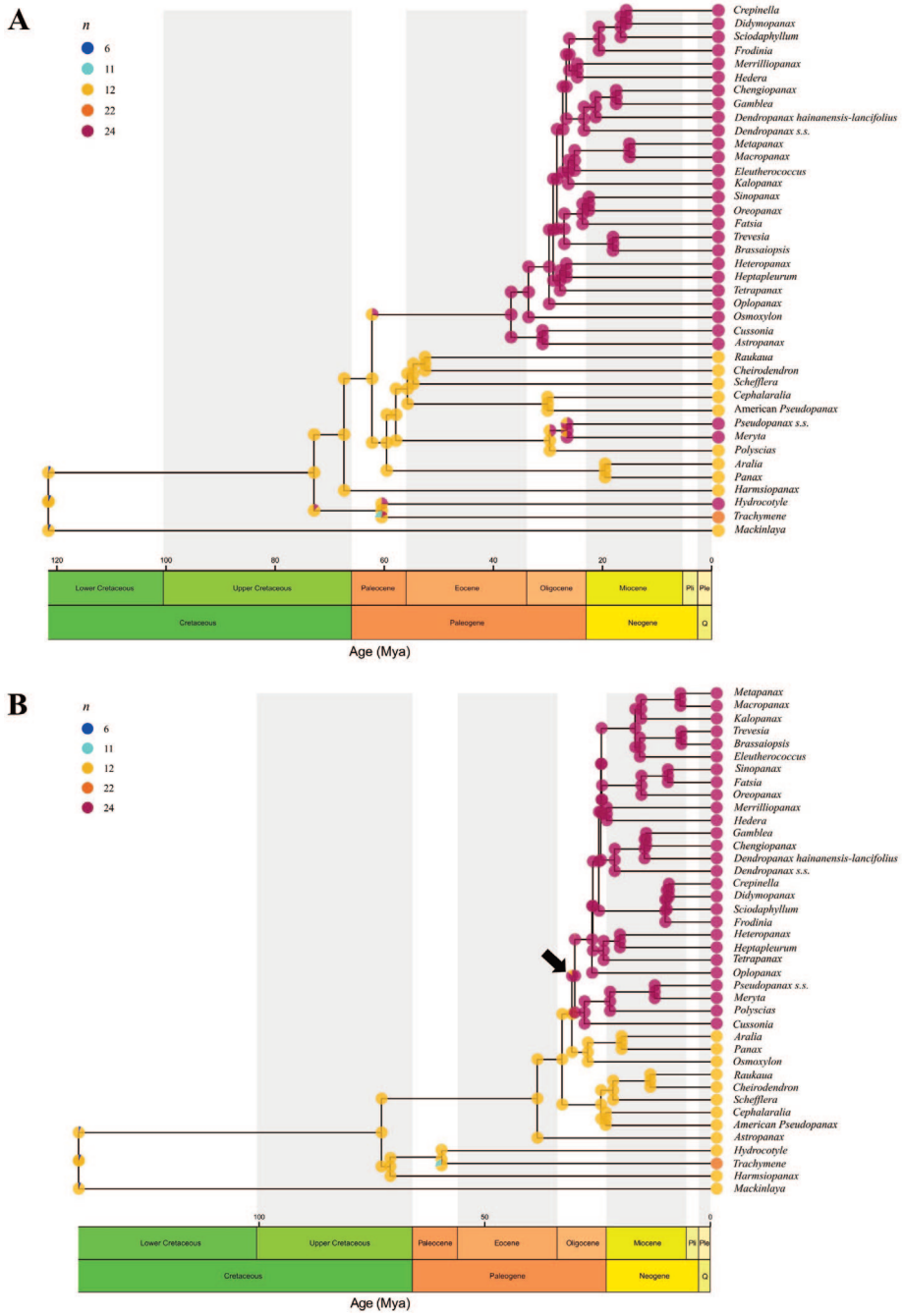
By Angélica Gallego Narbón

The plant family Araliaceae has shown a great importance for humans, both as a source of ornamental plants such as the common ivy (*Hedera helix*) and the Japanese aralia (*Fatsia japonica*), and as a source of medicinal plants such as the ginseng (*Panax ginseng*). This family is widely distributed across all continents except Antarctica, especially in tropical and subtropical latitudes. Despite the continued research to understand its evolution for several decades, our knowledge is still limited. This is partly a result of the limited species and genetic sampling of seminal studies in the field. However, all the evidence points to an early evolutionary radiation during the evolution of the family associated to whole genome duplication and hybridization between genera, with all of these processes hindering the identification of evolutionary patterns in this family.

The now postdoctoral researcher **Angélica Gallego Narbón** aimed to disentangle the evolutionary relationships of the ginseng family during her doctoral research in the PlantBEE group (Land Plant Biogeography, Ecology and Evolution) led by **Virginia Valcárcel** and Mario Fernández-Mazuecos in Universidad Autonóma de Madrid, in collaboration with the Smithsonian researchers **Jun Wen** and **Gabriel Johnson**. The results of this international collaboration were recently published in the journal *Frontiers in Plant Science* (16: 1595321; 2025, https://doi.org/10.3389/fpls.2025.1595321).

The researchers increased the taxon sampling to nearly 250 species representing 80% of the genera of the family, and improved the genetic sampling using the next generation sequencing technique Hyb-Seq to recover more than 900 nuclear loci and plastomes for each of the sequenced species. The increased sampling resulted in highly resolved nuclear and plastid phylogenies of the family that are topologically incongruent in the deeper nodes. These results provide new insights into the evolution of this family, while supporting the hypothesis of early hybridization between genera.

To better understand the role of hybridization and its relationship with whole genome duplication, the authors compiled a chromosome counts database for the family and assessed ploidy levels based on allelic frequencies, which were used for ancestral character reconstruction and chromosome-dependent diversification models. These analyses provided evidence of at least one whole genome duplication in the early evolution of the ginseng family preceding the origin of two out of three of its most diverse lineages, suggesting that whole genome duplications associated with hybridization were crucial for the evolutionary success of the family Araliaceae.



Ancestral chromosome numbers inferred for Araliaceae using chromosome dependent diversification models (ChromoSSE) based on nuclear (A) and plastid (B) time calibrated phylogenies. Arrows indicate whole genome duplication events linked to the origin of new lineages according to the diversification models. (image from *Frontiers in Plant Science*)

Smithsonian digitizes pollen from 18,000 plant species

-Adapted from Smithsonian Newsdesk

A team of researchers from the Smithsonian Tropical Research Institute is digitizing images of pollen from more than18,000 plant species from the tropics. These images are being used to train a machine-learning model to identify pollen grains, a job that usually takes hundreds of hours of microscopy work by pollen experts. The images also will make a wide range of new pollen analyses possible. The database, called PollenGEO, will be free online.

The Smithsonian pollen collection housed at the Smithsonian Tropical Research Institute (STRI) and the Smithsonian's National Museum of Natural History (NMNH) contains more than 18,000 species, making it one of the largest pollen collections in the world. Pollen reference database such as PollenGEO could potentially serve a myriad of functions in many areas of science and medicine. For example, quick and accurate pollen identification can help diagnose a pollen allergy, pinpoint where clothing at a crime scene came from, help investigate how ancient forests responded to climate change and date hydrocarbon deposits.

Pollen's value in paleontology derives from its durability—with some pollen grains lasting hundreds of millions of years, offering a window into Earth history that is precise in both time and space. Also, each plant species' pollen is unique and distinct from other species.

Previously, specialists identified pollen grains one by one under a microscope using illustrated handbooks as a reference. That process is very time consuming and can be particularly challenging in the tropics where there are thousands of plant species, many of them not yet identified. It is also challenging to identify pollen in ancient layers of rock because many of the plant species that produced the pollen are now extinct.

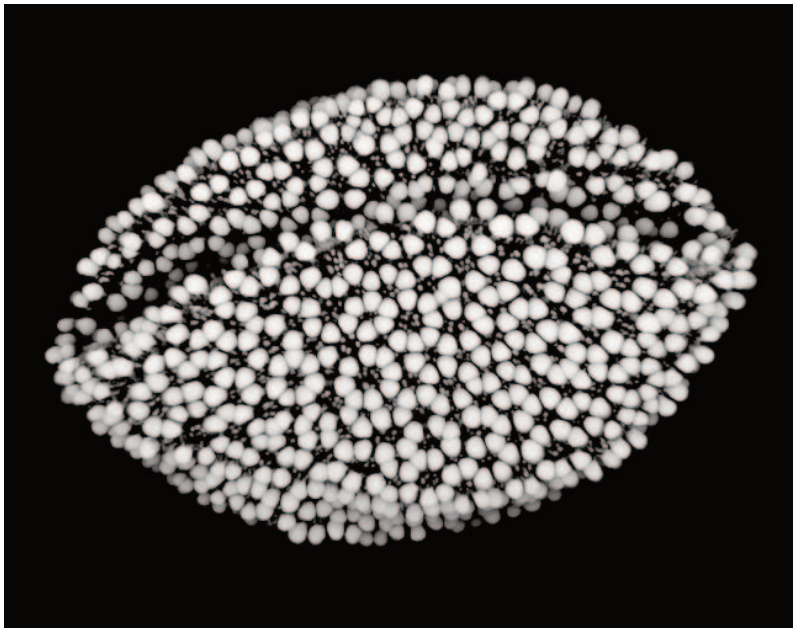
To resolve these challenges, more than 30 researchers and students at STRI led by staff palynologist, Carlos Jaramillo, are digitizing the entire Smithsonian palynological collection; they are uploading more than 40 million photos of pollen grains from known plant species to create a massive database. This dataset will be used to train AI models to aid pollen identifications.

Most samples derive from the Graham Palynological Collection, donated to STRI in 2008, which holds about 18,000 species of mostly tropical pollen on more than 23,000 microscope slides, each accompanied by an index card that describes the sample. About 100 volunteers working through the Smithsonian Transcription Center helped enter the information from the cards into the database. The collection also includes the **Joan Nowicke** collection from the NMNH Department of Botany, the Barro Colorado Island collection by Dave Roubik and Enrique Moreno, the Amazon collection made by Paul Collinvaux, and the Sian Ka'an collection, which contains 650 species from southeastern Mexico. In addition, approximately 1,000 fossil pollen samples from the NMNH Department of Paleobiology have been scanned.

Training an AI model to use this massive database to identify samples required collaboration among experts in a range of fields, from botany to computer science. Associate professor Surangi Punyasena from the University of Illinois Urbana-Champaign is constructing the AI environment. Jaramillo's team is part of the Trans-Amazon Drilling project, a large-scale project using pollen in drilling cores from across the Amazon to understand the history of the forest. This project includes researchers from several institutions, such as the Universidade Federal de Mato Grosso and the Universidade Federal do Acre, both in Brazil, and the Open University.

The availability of PollenGEO and other online pollen databases will transform pollen identification from a solitary activity behind a microscope to a digital and universally accessible process.

Funding for this work came from the Smithsonian Institution, the Anders Foundation, Gregory D and Jennifer Walston Johnson, the 1923 Fund, the Rubinoff Big Bet Endowment, the Smithsonian Women's Committee and the Smithsonian Life on a Sustainable Planet Pathfinder.



***Croton capitatus*, one of more than 40 million recently digitalized images of pollen from the Smithsonian collections. (photo from the Smithsonian Institution)**

Another grape escape in western United States and Jalisco, Mexico

By Jun Wen and Carol Kelloff

The two of us went on another great Grape Escape in late summer 2025 in the western United States (August 16-25, 2025), and then Jun Wen went to Jalisco, Mexico for an additional week (August 25-September 1). We primarily collected the grape family Vitaceae as well as the associated plants. We targeted the *Vitis arizonica* (canyon grape) species complex in the western U.S., covering Nevada, Utah, Arizona, New Mexico, and Texas. Wen's trip to Jalisco was primarily focused on *Cissus*, *Vitis*, *Ampelocissus*, and *Parthenocissus*. She was joined by botanical colleagues, especially Professor Antonio Vázquez-García and his associates from the Departamento de Botánica y Zoología, Universidad de Guadalajara, Mexico.

The expedition started in the Las Vegas area of Nevada focusing on the *Vitis arizonica* species complex, first in the Red Rocks Canyon with permission from the Red Rock/Sloan Field Office of the Bureau of Land Management (BLM), and then in the Lake Mead National Recreation Area with permission from the National Park Service (NPS). Wen was in the Las Vegas region in 2018 but did not have the permits to collect wild grapes in protected areas at that time. With the pandemic over, we were finally able to make this grape expedition to Nevada, with generous assistance from colleagues in the Red Rocks Canyon and the Lake Mead National Recreation Area, focusing regionally on the Grapevine Canyon as well as Rogers Spring in Lake Mead. We are especially grateful to Riley Rackliffe, the research permit coordinator at Lake Mead. Rackliffe generously provided detailed information about the wild grapevines in the Lake Mead National Recreation area and arranged the logistics of our visit.

***Vitis gerrathiana* J. Wen ined., in Kinney Co., Texas (*Wen 18638*). (photo by J. Wen)**

Jun Wen in the middle of a patch of *Vitis arizonica* by the Reeds Creek in Utah. (photo by C. Kelloff)

After the Nevada grape hunting, we drove north to Utah and visited Washington County to collect in St. George, Washington, Rockville, and Leeds, targeting the northern populations of *Vitis arizonica*. We then collected in Coconino County, Arizona, and the counties of Rio Arriba, Santa Fe, and San Miguel in New Mexico to target more populations of *Vitis arizonica*.

Texas is one of the diversity centers of North American grapes. Wen had explored Texas many times with various colleagues in the last 20 years. This time we first visited the Texas panhandle (Amarillo and vicinities in Potter County) and collected a few populations of *Vitis acerifolia*, a Great Plains species in the High Plains region. We then headed south to the Lubbock area to collect Doan's grape, *Vitis* × *doaniana*, a hybrid grape species resulting from the natural hybridization of *V. mustangensis* and *V. acerifolia*. We also collected a yet to be named grape species, *Vitis gerrathiana* J. Wen ined., in Del Rio of Val Verde County near the border with Acuña, Coahuila, Mexico. Wen was collecting in Coahuila, Mexico in 2024 and she encountered several populations of this unusual grape species along the Rio Grande. We found more populations of this grape species in Kinney County, Texas, which is just east of Val Verde County. On the way to Fort Worth, we made a few collections of *Vitis linsecomii* (post oak grape) and *V. mustangensis* (Mustang grape). We also ran into and collected the easternmost population of *Vitis arizonica* during the Texas portion of the trip.

Wen's trip to Mexico allowed her to explore several unusual species of Vitaceae in Jalisco. Upon arrival Wen first worked in the Universidad de Guadalajara Herbarium (IBUG) and gave a seminar titled, "Advances in Plant Systematics in the New Age of Big Data." It was great to meet the many plant systematists and a large number of students in systematics in Universidad de Guadalajara, and it was good to collect *Vitis blancoi* in Guadalajara, its type locality.

Wen, Antonio Vázquez-García, and three of his students made a road trip to Puerto Vallarta and Chamela in western Jalisco. Even though Wen briefly collected in both areas during her prior trips to Mexico, this visit was fruitful to target several unusual and poorly understood

species. It was productive to work with Vázquez-García's team. Vázquez-García is a very experienced systematist and an ecologist, and he helped design the field routes and often found great specimens with his ecological expertise. We also visited the Vallarta Botanical Gardens in Puerto Vallarta and was warmly hosted by Robert Price, the founder of the Vallarta Botanical Gardens. Price accompanied us to collect in areas near the botanical garden and shared his great efforts on conserving native biodiversity in Mexico through the Vallarta Botanical Gardens.

It was a highly productive field trip, collecting the most extensive set of specimens of the *Vitis arizonica* species complex as well as several poorly known species and a few taxonomic novelties from western US and Jalisco, Mexico. Furthermore, the additional connections we made in Jalisco will greatly benefit our research on the grape family and other plant groups.

Collecting an unusual *Cissus* in Puerto Vallarta (left to right): Juan Luis Lomeli Hernández, Antonio Vázquez-García, Jun Wen, and Byron Gullermo Gutierrez. (photo by Jesús Padilla-Lepe)

Call for Applications: The 2026 Department of Botany Travel Awards

Department of Botany Travel Awards are presented annually to support the resident study of collections in the United States National Herbarium, with preference given to students working on tropical plants. Typically, about four awards are made. This year, awards will be for six weeks, with a stipend of $6,000.

José Cuatrecasas Award. This award commemorates the late Dr. José Cuatrecasas, who was associated with the USNH for over fifty years. He dedicated his career to the study of the high elevation flora of northern South America, and he monographed or revised a variety of Neotropical angiosperm genera.

Lyman B. & Ruth C. Smith Award. This award is intended to provide career development opportunities for young scientists. The fellowship was created to honor the legacy of the late Dr. Lyman B. Smith and his wife Ruth C. Smith. Dr. Smith, former Curator of Botany at the USNH, monographed several Neotropical angiosperm families and contributed to several flora projects of South America; his wife's support was instrumental in his success.

Harold E. Robinson & Vicki A. Funk Award. This award is restricted to the study of Asteraceae. It honors the late Dr. Harold E. Robinson and Dr. Vicki A. Funk, both former Curators at the USNH who devoted most of their careers to understanding the systematics and phylogeny of this large and diverse family, especially in the Neotropics.

Applications must be submitted through the Smithsonian Academic Appointment System (SOLAA), accessible at https://solaa.si.edu. A curriculum vitae, a short (two-page) proposal, and a letter of support are required. Complete applications must be received no later than **15 February 2026**. Applicants will be notified of the decision made by the selection committee by 15 March 2026 and awardees are expected to visit by 15 March 2027. For additional information, please contact Eric Schuettpelz (SchuettpelzE@si.edu), travel awards committee chair.

Visiting botanists in the US National Herbarium, June 2015. (photo by Eric Schuettpelz)

NEW FACES

Amrutha Athalappil, a post-doctoral fellow from India, joined the Department of Botany in September for six months under the supervision of **Jun Wen**. She completed her Ph.D. at the University of Calicut, India, where she conducted taxonomic and molecular studies on *Leea* (Vitales) in India. At the National Museum of Natural History, her research focuses on a global phylogenomic study of *Leea,* an early diverged lineage in the grape order Vitales. The proposed work will provide a more accurate phylogeny of the genus and explore its major clades in order to establish a framework for its phylogenetic classification. In addition, her study will evaluate the relationship between *Leea* and members of the grape family Vitaceae through a systematic approach.

Lucile Jourdain, a Peter Buck Postdoctoral Fellow, joined the Department of Botany for a two-year appointment under the supervision of **Laurence J. Dorr** and **Kenneth J. Wurdack**. Her project, "A post-Gondwanan radiation in the paleotropics: phylogenomics and biogeography of *Grewia* L. (Malvaceae) with a focus on Madagascar," applies next-generation sequencing (NGS) approaches—particularly capture enrichment—to reconstruct a robust phylogenomic framework and unravel the evolutionary history of this diverse group. In addition, the study examines key morphological traits related to pollination and seed dispersal, shedding light on the adaptive strategies within the genus. By combining phylogenomics, morphology, and biogeographical analyses, this research advances the taxonomy and evolutionary understanding of the Grewioideae and contributes to broader efforts to conserve Madagascar's unique biodiversity.

Angélica Quintanar Castillo is a Smithsonian Institution Fellowship Program (SIFP) Fellow working with **Jun Wen**. She is a Ph.D. student at the Universidad Nacional Autónoma de México (UNAM) under the supervision of Marcelo Pace, a former member of the NMNH community. Her research focuses on the evolution of the vascular system in lianas that grow across contrasting environments, using the grape family (Vitaceae) as a study group. Her work integrates detailed anatomical studies and phylogenetic perspectives to explore how structural traits of the vascular system have evolved and contributed to the remarkable diversity and wide distribution of the family. Through this integrative approach, she seeks to understand which anatomical features have facilitated the success of liana lineages across diverse and sometimes extreme environments. Her investigations in

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New faces: Amrutha Athalappil (left) and Lucile Jourdain (right).

New Faces

Continued from page 12

plant anatomy involve collecting and analyzing stem samples from cultivated specimens in the greenhouses at the Museum Support Center (MSC) in Maryland. Her work in the Anatomy Lab will focus on describing the structural diversity of the vascular system across species to broaden the taxonomic and anatomical scope of her ongoing project. Her academic journey has always been deeply rooted in plant anatomy, from her undergraduate studies on fossil woods, to her work on the vascular ontogeny of Malpighiaceae lianas, and now to her exploration of anatomical diversity and adaptation in Vitaceae. She is excited to join the Botany Department community, where she looks forward to learning from ongoing research in the Anatomy Lab and to expanding her understanding of the evolutionary pathways that have shaped lianas' unique vascular systems.

Caroline Terlecki is the newest member of the Collections Management Team within the Department of Botany. In her new position as Museum Specialist, she will be working with **Erika Gardner** and **Meghann Toner** to maintain herbarium specimens and equipment as well as participate in engagement and outreach activities. She received her master's degree in museum studies with a concentration in Collections Management from George Washington University in 2023. Prior to her new position, she was a contractor for the Smithsonian's National Museum of Natural History, working on projects such as moving the Invertebrate Zoology dry specimen mollusk collection and updating the taxonomy of botany specimens in the herbarium. During her time as a contractor in Botany, she began to truly appreciate global plant diversity, which led to a larger passion for learning more about plant life. Before transitioning to the world of museums, she spent about 20 years in the live events industry working on concerts, conferences, trade shows, awards ceremonies, and more in the Washington, DC area.

New faces: Angélica Quintanar Castillo (left) and Caroline Terlecki (right).

HONORS & AWARDS

Alice Tangerini received a Highly Commended Award for her illustration of *Bahiana occidentalis* (Euphorbiaceae) in the 2025 Margaret Flockton Award Exhibition. The Margaret Flockton Award is an annual, international award for excellence in scientific botanical illustration. It commemorates the contributions that Margaret Flockton (1861–1953), the Royal Botanic Garden Sydney's first scientific illustrator, made to Australian scientific botanical illustration. Every year, illustrators from around the world submit scientifically accurate drawings that accompany the published taxonomic description of a plant, clearly highlighting all of the distinctive features of the species. Tangerini's illustration will be displayed outside of the office of the Chief Executive of the Botanic Gardens of Sydney.

The drawing was originally made to accompany a scientific article (*PhytoKeys* 219: 121-144; 2023) by **Kenneth Wurdack** describing *Bahiana occidentalis* as a new species from Peru. The plant had been repeatedly collected (35 collections in 40 years) but had resisted expert identification even to genus until DNA data placed it in an evolutionary tree.

The judges made the following comments regarding Tangerini's artwork: "Yet another use of digital media, working also with inked lines, this illustration explores the potential of rendering tone and form with variety and economy. With limited access to reference material of this new species, the artist enjoyed creating fruiting and male floral parts that glow with airbrushed-style highlights and shadows, while accurately observing the seed surface pigmentation to create depth and realism. A clever attribute of digital media, identical leaf shapes have been copied and pasted to swiftly create a sense of the habit without the hours of labour demanded by traditional media."

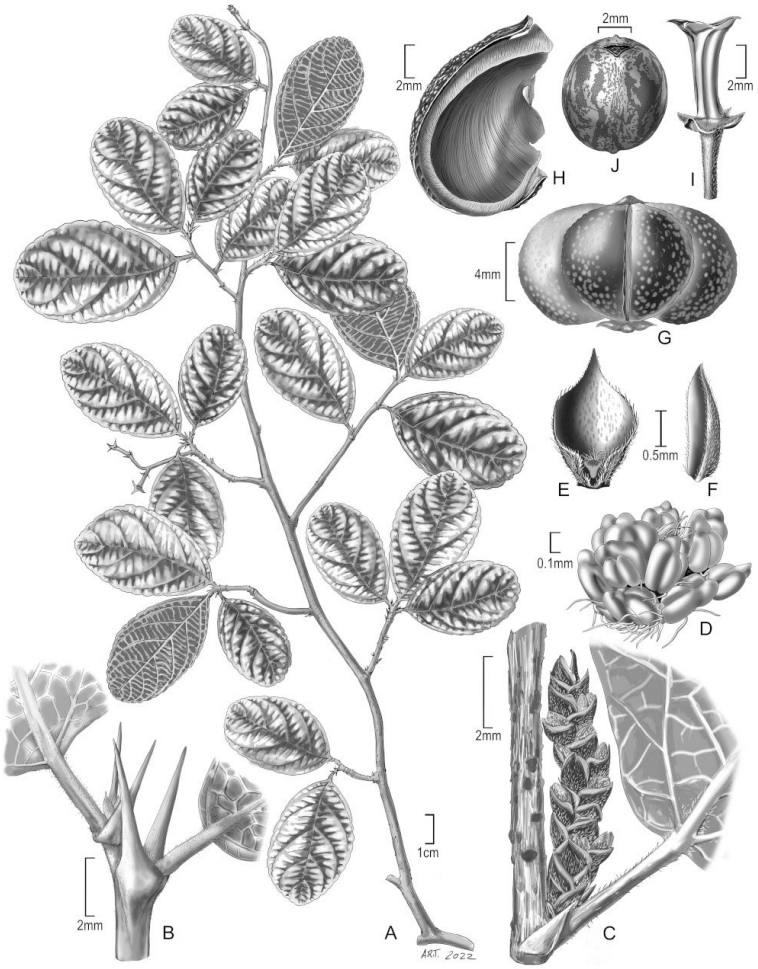
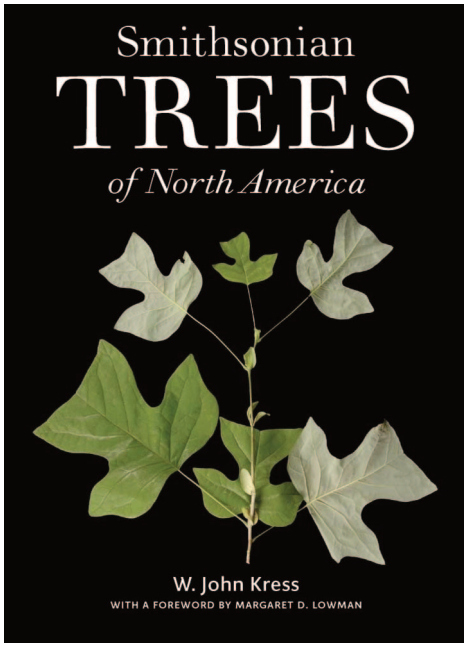


Illustration of *Bahiana occidentalis* (Euphorbiaceae) by Alice Tangerini.



The book, *Smithsonian Trees of North America* by **W. John Kress** (Yale University Press), won the Design & Artistic Merit category of the 2025 National Outdoor Book Awards (NOBA). As an educational program, the award annually honors outstanding writing and publishing in the outdoor field. The managing body of the awards is the NOBA Foundation, a nonprofit, volunteer organization. The announcement was made on the NOBA website at http://www.noba-web.org/books25.htm. From the website:

> "Awestruck" is what one judge wrote. Another who has reviewed, and evaluated books for over 20 years, awarded *Smithsonian Trees of North America* his highest score ever. W. John Kress has left no leaf unturned: over 800 pages of authoritative information, supplemented with several thousand photographs, with not one photograph out of focus. The book is so well designed, so well written and organized, that anyone can benefit from it whether you have a passing interest in trees or an advanced degree in botany. This is an exceptional work, a book at the very top of its game.

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Honors & Awards

Continued from page 14

W. John Kress received the 2025 Peter Raven Award given by the American Society of Plant Taxonomists to a plant systematist who has made exceptional efforts at outreach to non-scientists. The award ceremony was held in Palm Springs, California, during Botany 2025 in July. Kress was recognized for his numerous extraordinary achievements in public outreach during his career.

While Kress served as Chair of Smithsonian Botany, he initiated the Smithsonian Botanical Symposium series. The symposium series has become a major window into plant sciences and is a primary outreach platform about plants at the Smithsonian Institution and at the nation's capital. *The Weeping Goldsmith* is a popular narrative book that he authored in 2009, documenting his botanical exploration and scientific discovery in the secret land of Myanmar, one of the poorly studied biodiversity hotspots in Asia. His work to bridge the disciplines of art and science was recognized in two of his co-authored books, *The Art of Plant Evolution* and *Botanica Magnifica*.

Kress was instrumental in developing the free mobile app, *Leafsnap*, which was the first app to use visual recognition software to help identify plant species from photographs, first released in 2011. This idea inspired the development of countless other apps that teach the public about plants. Kress' most recent product is the monumental *Smithsonian Trees of North America*, published in September 2024 by Yale University Press. The book was 10 years in the making and is an indispensable illustrated source of information for over 300 species of North American trees, accompanied by range maps and 3,000 high quality photographs. It is much more than a field guide, as it also reflects on the consequences of environmental change on the health of trees, a conservation perspective he has held throughout his career.

His strong support of the planet is also seen in his co-edited books *Plant Conservation – A Natural History Approach* and *Living in the Anthropocene: Earth in the Age of Humans*. He has been a great orator to the public, has extensively published public oriented books, and has served the Smithsonian with distinction, which has inspired numerous people on treasuring and conserving the planet Earth.

W. John Kress receives the Peter Raven Award at Botany 2025 in Palm Springs, California. (photo by Jun Wen).

By the numbers: Accessions and Loans 2025

Specimens come and specimens go. These numbers represent the movement of specimens through the U.S. National Herbarium during Fiscal Year 2025.

10,283

Newly accessioned specimens, a 68% increase from FY24

1,553

Specimens sent out on loan, a 36% increase from FY24

1,502

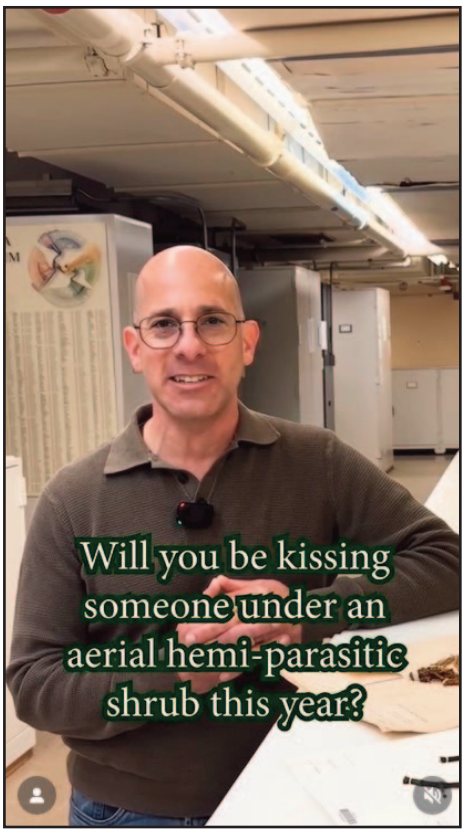
Specimens borrowed from other herbaria, a 418% increase from FY24

A small sample of newly accessioned plant material awaiting mounting. (photo by Gary Krupnick)

STAFF ACTIVITIES

The National Museum of Natural History (NMNH) hosted a Natural History Research Experiences (NHRE) symposium on July 31, 2025 in the Coralyn W. Whitey Q?rius Science Education Center at NMNH. At the symposium, 14 NHRE undergraduate interns, in collaboration with their research mentors, presented their research posters describing the work they performed during the summer. During the symposium, Department of Botany intern **Madison Conn** presented, "Chemistry does not correlate with species boundaries in a complex of South African lichens," in collaboration with **Ian Medeiros** and **Eric Schuettpelz**. Botany intern **Carter Keyworth** presented, "Tracking the morphological, phylogenetic, and geographic evolution of *Cissus* in Mexico," in collaboration with **Alberto Coello, Angélica Gallego-Narbón**, and **Jun Wen**.

Alice Tangerini traveled to Madison, Wisconsin from November 13-15, 2025, at the invitation of Joseph Walston, President of the Plant Sciences Graduate Student Council (PSGSC) at the University of Wisconsin-Madison, to give a lecture and share samples of her botanical illustrations at the 15th Annual Plant Sciences Symposium. Tangerini presented a lecture on "Fifty Years of Botanical Illustration," and provided a display of artwork, representing techniques used over half a century in illustrations drawn for the Department of Botany. After her lecture, attendees visited Tangerini's table of artwork and even sampled drawing with pen and ink on drafting film that she had provided.

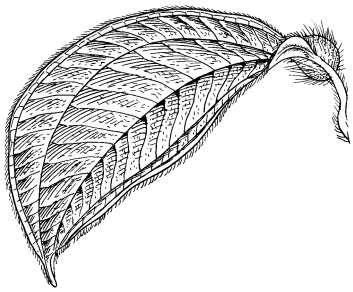


Gary Krupnick rings in the holiday season with a video about mistletoe on the social media pages of the National Museum of Natural History.

Barrett Brooks in "Algae Fast Facts", a video in the series, "Smithsonian Sea Science in Sixty Seconds," on YouTube.

As a part of the series, "Smithsonian Sea Science in Sixty Seconds," a video was posted in the fall to the Smithsonian's National Museum of Natural History YouTube page in which **Barrett Brooks** provides "Algae Fast Facts". Most people think about land plants when they hear the term "botany," but Brooks directs our attention to aquatic photosynthetic organisms called algae. Both a researcher and collections-support specialist for the museum's botany collection, Brooks highlights just how important algae were to the evolution of life on Earth.

To ring in the holiday season, a video about mistletoe was posted in December to Smithsonian's National Museum of Natural History Facebook and Instagram pages. The video features **Gary Krupnick** narrating a script written by Botany Research Associate **Marcos Caraballo-Ortiz**, an expert in parasitic plants. Displaying specimens, photographs, and illustrations, Krupnick describes how the unique lifestyle of mistletoe have influenced cultural traditions.



TRAVEL

Alberto Coello traveled to Palm Springs, California (7/26 – 7/30) to give a presentation at the Botany 2025 conference, with the talk, "Phylogenomics disentangles the evolutionary and biogeographic uncertainty in *Apocissus* (Vitaceae)"; and to Seville, Spain (9/22 – 9/25) to attend II Congreso de Botánica SEBOT 2025 held at Universidad Pablo de Olavide.

Stuart Davies traveled to throughout Mexico (6/22 – 7/4) to explore potential new ForestGEO and GEO-TREES sites in Sonora, Durango and Oaxaca, and to attend the Association for Tropical Biology and Conservation (ATBC) meeting in Oaxaca where he organized a symposium on tropical tree mortality; and to Nanyuki, Kenya (7/14 – 7/29) to attend the 2025 ForestGEO Annual Analytical workshop which brought together 55 people from 21 countries.

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Travel

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Angélica Gallego-Narbón traveled to Palm Springs, California (7/26 – 7/30) to give a presentation at the Botany 2025 conference, with the talk, "Boreotropical origin and expansion across Neotropical America explain the evolution of the amphi-Pacific tropical genus *Dendropanax* (Araliaceae)"; and to Seville, Spain (9/22 – 9/25) to attend II Congreso de Botánica SEBOT 2025 held at Universidad Pablo de Olavide.

Erika Gardner traveled to Palm Springs, California (7/26 – 7/30) to give a presentation at the Botany 2025 conference, with the talk, "The United States National Herbarium after hours: hands-on plant mounting for all."

Carol Kelloff traveled to Texas (8/25 – 8/29) to work at the Botanical Research Institute of Texas (BRIT) to sort through and to help organized the 189 boxes of specimens that was the legacy of Robert Kral and to find missing loan material.

Ana Gabriela Martínez traveled to Fort Worth, Texas (7/18 – 7/24) to collect specimens of the fern genus *Elaphoglossum* at the Botanical Research Institute of Texas (BRIT); to Palm Springs, California (7/26 – 7/30) to present a talk, "Rhizome vascular anatomy and growth form evolution in the fern genus *Elaphoglossum*," at the Botany 2025 conference; and to Steuben, Maine (8/17–8/23) to attend the course, "Taxonomy and Biology of Ferns and Lycophytes," at the Eagle Hill Institute.

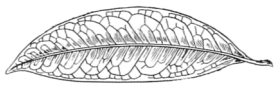
Ian Medeiros traveled to New York City, New York (10/8) to exam specimens of *Xanthoparmelia* for his postdoctoral research project at the New York Botanical Garden; to Valdosta, Georgia (11/13) to give a seminar his *Xanthoparmelia* research at Valdosta State University; and to St. Mary's City, Maryland (12/1) to give a seminar on his *Xanthoparmelia* research at St. Mary's College of Maryland.

Kathryn Picard traveled to Palm Springs, California (7/25 – 7/31) to attend the Botany 2025 conference, where she presented a talk, "Spore analysis of herbarium specimens reveals patterns of cytotype and reproductive mode diversity in homosporous ferns: case studies from the Pteridaceae" as part of a colloquium honoring Kathleen Pryer and Michael Windham, and to manage events and the publicity booth for the American Society of Plant Taxonomists.

Eric Schuettpelz traveled to Palm Springs, California (7/25 – 7/31) to attend the Botany 2025 conference, where he co-organized a colloquium and workshop and delivered a presentation.

Alice Tangerini traveled to Bridgewater, Massachusetts (7/14 – 7/18) to attend the 2025 Guild of Natural Science Illustrators (GNSI) Conference at Bridgewater State University and exhibited two artworks, *Mapania pakaraimensis*, and *Oenothera lucie-julianiae*, in the GNSI Annual Exhibit which was held at nearby Lakeview Public Library; and to Madison, Wisconsin (11/13 – 11/15) to give a lecture and share samples of her botanical illustrations at the 15th Annual Plant Sciences Symposium at the University of Wisconsin-Madison.

Jun Wen traveled to Palm Springs, California (7/26 – 7/31) to attend the Botany 2025 conference; to Arizona, Nevada, New Mexico, Utah, and Texas (8/16 – 8/24) with **Carol Kelloff** to collect *Vitis* (grapes) to fill in research gaps of the western United States; and to Jalisco, Mexico (8/25 – 9/1) to continue collecting plants and to give a presentation on "Advances in plant systematics in the new age of big data," at Universidad de Guadalajara.



VISITORS

Yali Li, South China Botanical Garden, China; *Firmiana* (Malvaceae) (9/10/24-9/3/25).

Ting Wang, South China Botanical Garden; *Angiopteris* (Marattiaceae) (9/10/24-9/3/25).

Fabio Andres Avila Castillo, New York Botanical Garden; *Critoniopsis*, *Cuatrecasanthus*, *Joseanthus*, *Vernonia* (Vernonieae, Asteraceae) (7/1-7/25).

Marcos Caraballo, Independent researcher; Herbarium research (7/1-7/4).

Aaron Kennedy and **Pooja Pant**, U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine; *Asphodelus* (Asphodelaceae) (7/3).

Mary Childress, University of Colorado Boulder; *Polylepis* (Rosaceae) (7/7-7/18).

Carolyn Ferguson, Kansas State University; *Phlox* (Polemoniaceae) (7/7-7/11).

Sebastian Giraldo Gomez, Royal Botanic Garden Edinburgh, United Kingdom; *Begonia* (Begoniaceae), *Gonzalagunia* and *Posoqueria* (Rubiaceae) (7/7-7/11).

Mark Mayfield, Kansas State University; *Phlox* (Polemoniaceae) and *Euphorbia* (Euphorbiaceae) (7/7-7/11).

Mary McKenna and **10 students**, University of Virginia Blandy Field Station; Herbarium tour and plant conservation (7/11).

Fabiana Mirra, Instituto de Botanica Darwinion, Argentina; *Lippia* (Verbenaceae) (7/14-7/18; 9/2-9/30).

Bryton Smith, Field Museum; Fabaceae (7/14-7/18).

Nina Foster, **Genie Yoo**, and **10 students**, Dumbarton Oaks; Herbarium tour and plant conservation (7/22).

Joo-Hwan Kim, Gachon University, South Korea; Monocots (Liliales) (8/4-8/7).

Hongzhi Kong, Chinese Academy of Sciences; Collaborative research (8/4).

Neupane Suman, Ball State University; Spermacoceae (Rubiaceae) (8/4-8/6).

John Pipoly, Botanical Research Institute of Texas, and **Miriam Luz Agudelo-Pipoly**, independent researcher; Myrsinaceae, Clusiaceae (8/14).

Mauricio Figueira, Universidade de Brasília, Brazil; *Colubrina* and tribe Gouanieae (Rhamnaceae) (8/15-8/26).

Christopher Warneke, University of Wisconsin; *Cirsium* (Asteraceae) and *Hedera* (Araliaceae) (8/15).

Juliene Maciel, Museu Paraense Emilio Goeldi and Universidade Federal Rural da Amazonia, Brazil; American *Bulbostylis* (Cyperaceae) (8/18-8/22).

John Mitchell, New York Botanical Garden; Anacardiaceae (8/18-8/22; 12/1-12/5).

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Visitors

Continued from page 17

Jose Esteban Jimenez Vargas, University of Florida; *Peperomia* (Piperaceae) (8/20-9/9).

Kevin Quinteros and **Zhengren Zhang**, University of Maryland; *Ficus* (Moraceae) (8/26-8/29).

Daniel Moroni, Instituto de Botánica Darwinion, Argentina; *Cryptantha*, *Greeneocharis*, and *Johnstonella* (Boraginaceae) (9/2-9/5).

Matthew Sewell, U.S. Department of Agriculture; Herbarium research (9/8-9/12).

Amrutha Athalappil, University of Calicut, India; Vitaceae (9/15/25-2/28/26).

Angelica Quintanar-Castillo, Universidad Nacional Autonoma de México; Vitaceae (9/15-11/24).

Zhumei Ren, Shanxi University; *Rhus* (Anacardiaceae) and gall aphids (9/16-12/25).

Abigail Hardy, **Diana Marsh**, and **Maria Vivar-Guzman**, University of Maryland; wild rice, *Zizania palustris* (Poaceae) (9/17).

John Clark, Marie Selby Botanical Gardens; Gesneriaceae (9/22-9/25).

Benjamin Lazarus, University of Vienna, Austria; Poricidal flowers (Solanaceae, Ericaceae, Melastomataceae, Fabaceae, *Primula*, and *Pedicularis*) (9/22/25-9/26/26).

Lynn Clark, Iowa State University; Bambusoideae (Poaceae) (9/29-10/3).

Quentin Cronk, University of British Columbia, Canada; Papua New Guinea *Alpinia* (Zingiberaceae) and *Cyrtandra* (Gesneriaceae) (10/8).

Polla Renon Machado, State University of Campinas, Brazil; *Vernonia* s.s., *Vernonanthura*, and *Vickianthus* (Asteraceae) (11/14-11/28).

Nick Ruppel and six students, Randolph-Macon College; Tour of the herbarium and fossil collection (11/17).

Jackson Kehoe, Chicago Botanic Garden; *Brugmansia* (Solanaceae), *Gasteranthus* (Gesneriaceae), and *Encephalartos* (Zamiaceae) (12/3-12/5).

Yumin Shui, Kunming Institute of Botany, China; Begoniaceae and Ebenaceae (12/8-12/14).

Daniel Atha, State University of New York, Westchester Community College; *Persicaria* (Polygonaceae) (12/15-12/19).

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Acevedo-Rodríguez, P., **M.T. Strong**, and M.R. Pace, eds. 2025. *Families and Genera of Climbing Plants in the Neotropics*. Smithsonian Institution Scholarly Press, Washington, DC. https://doi.org/10.5479/si.30675224

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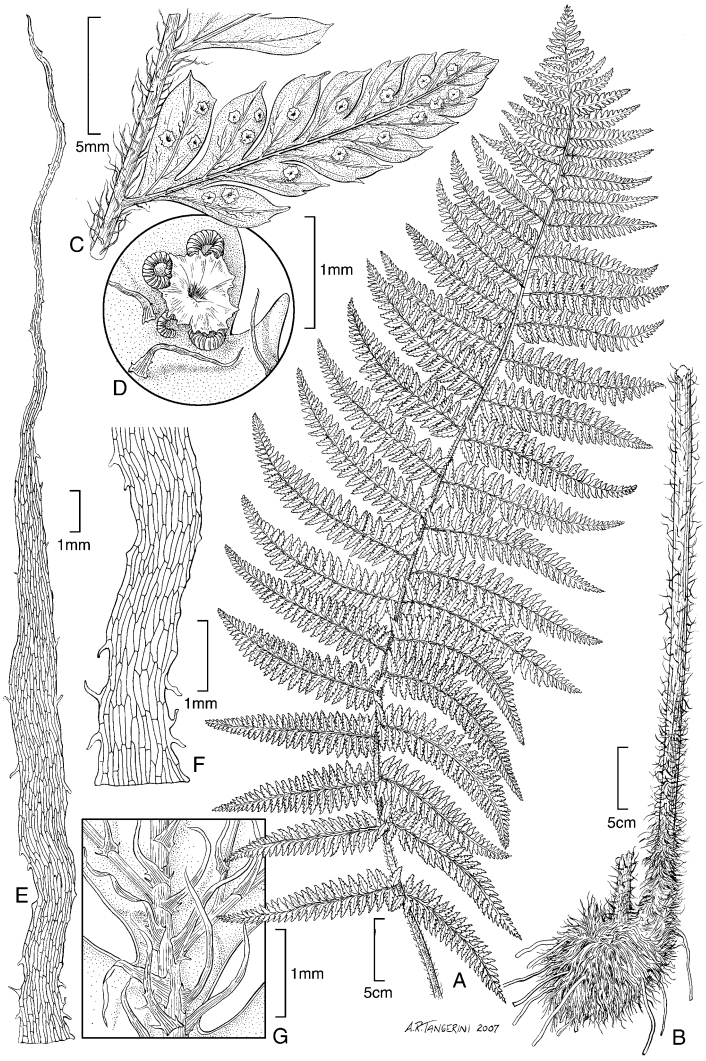
ART BY ALICE TANGERINI

Polystichum kenwoodii Lorence & W.L.Wagner

The botanical theme for the August 2025 After Hours specimen preparation event was ferns. Specimens are critically important in the illustration of new plant species, sometimes as it is the only material the artist has at hand during the drawing process. Such is the case of *Polystichum kenwoodii* (Dryopteridaceae), an endangered fern species from the montane wet forests and shrublands of the Marquesas Islands. In her illustration, Alice Tangerini was working from unmounted material in Kauai while on a 2-week travel to illustrate the ferns of the Marquesas Islands in September 2005. The fern, which was larger than an herbarium sheet, was photocopied at life size (about 70 cm), pieced together and then reduced to fit the 11”x17” format for the final plate. The plate was inked in 2007 and published in *PhytoKeys* in 2011.



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