



FLORIDA COUNCIL OF BROMELIAD SOCIETIES

Volume 41
Issue 3
August 2021





TABLE OF CONTENTS

Table of Contents.....	2
2021 FCBS Officers and Representatives, Committee Members, Florida BSI Officers.....	3
I Love bromeliad by Carol Wolfe, Editor.....	4
Alcantarea extensa by Tom Wolfe	5
Alcantarea extensa full plant picture	6
Jane Villa-Lobos, Because We Asked by Calandra Thurrott.....	7
Some Benefits of Good air Circulation by Tom Wolfe.....	12
Eileen Hart June 12, 1942 to June 15, 2021.....	13
Tillandsia 'Fireworks' by Tom Wolfe.....	14
The Marie Selby Botanical Gardens, Sarasota, Florida.....	15
Plan a Trip to Selby to See these exhibits.....	18
Using Frozen Pollen in Hybridization by Nick Bethmann.....	19

PUBLICATION: This newsletter is published four times a year, February, May, August, and November, and is a publication of the Florida Council of Bromeliad Societies. Please submit your bromeliad related activities, articles, photographs, society shows, news and events of your society.

DEADLINES FOR ARTICLE SUBMISSIONS ARE:

January 15 for February issue

April 15th for May issue

July 15 for August issue

October 15th for November issue

COPYRIGHT: All materials contributed and published in this FCBS Newsletter are copyrighted and belong to the authors/photographers. The authors/photographer have given permission to use the materials and pictures in this publication for educational purposes. You may use any articles and/or pictures published in the FCBS Newsletter for educational purposes with the credit given to the authors and/or photographers. Commercial use of this material is prohibited but you may contact the authors/photographers directly for other permissions or material purchases.

FCBS TAX DEDUCTIBLE RECEIPTS: The Florida Council of Bromeliad Societies, Inc. is a 501(c) 3 Non-Profit Corporation, incorporated in the State of Florida. Please make your contributions for 2020 tax deductible receipts by going to FCBS.org to make online contributions through PayPal or mail check or money order to FCBS Treasurer: Sudi Hipsley, 6616 Tusawilla Drive, Leesburg, FL 34748-9190. If you have questions regarding your contribution, please call Sudi at 352-504-6162.

FRONT COVER:

Alcantarea extensa photo by Carol Wolfe



2021 FCBS OFFICERS & MEMBERS



Tom Ramiccio
2021 Chairman
Bromeliad Society of Palm
Beaches

Richard Poole
2021 Vice President
Florida West Coast
Bromeliad Society



Nick Bethmann
2021 Secretary
Bromeliad Society of Palm
Beaches

Sudi Hipsley
2021 Treasurer
Seminole Bromeliad &
Tropical Plant Society



VOTING REPRESENTATIVES of the FCBS:

Bromeliad Guild of Tampa Bay
Tom Wolfe & Carol Wolfe

Bromeliad Society of Central Florida
Betsy McCrory &
Mike Saunders

Bromeliad Society of Palm Beaches
Tom Ramiccio &
Nick Bethmann

Bromeliad Society of South Florida
Michael Michalski &
Patty Gonzalez

Caloosahatchee Bromeliad Society
Vicky Chirnside

Florida East Coast Bromeliad Society
Calandra Thurrott &
Jack Dunlop

Florida West Coast Bromeliad Society
Susan Sousa &
Richard Poole

Gainesville Bromeliad Society
Sandy Burnett

Sarasota Bromeliad Society

**Seminole Bromeliad &
Tropical Plant Society**
Sudi Hipsley &
Greg Kolojeski

COMMITTEES MEMBERS:

*The following Committee Members and guests
have a standing invitation to FCBS Meetings as
Non-Voting Members unless serving in the dual
role of Member Society Representative.*

Al Muzzel Weevil Fund:
Tom Wolfe, Chairman
Richard Poole
Nick Bethmann

FCBS Editorial Panel:
Carol Wolfe, Editor
Tom Wolfe, Assistant Editor
Calandra Thurrott, Copy Editor

FCBS Roster Maintenance:
Susan Sousa

FCBS Webmaster:
Michael Andreas
Webmaster@FCBS.org

Weevil Research:
Howard Frank, PH.D
Ron Cave, PH.D
SFBCP@savebromeliads.com

**BSI Officers & Committee Members
from Florida:**
Gregory Kolojeski, Vice President
Barbara Partagas, Secretary

BSI Directors from Florida:
Rick Ryals; Alex Bello,
Alan Herndon & Richard Poole



I love Bromeliads... By Carol Wolfe, Editor

Good morning,

It's a new morning and as we wake to the beauty of God's creation surrounding us, we hope that you and your family are well and enjoying your life and the beauty and joy that your bromeliads and tropical plants bring you.

We each have our own "bromeliad paradise" created with loving hard-working hands to admire, to share, and to enjoy. My paradise is in Lutz where we have lived for forty-five years and Tom has truly made it a paradise with beauty wherever you look. I hope you enjoy the articles from Tom about the *Alcantarea extensa* and the *Tillandsia* 'Fireworks'. We have enjoyed watching them growing and flowering in these past months.

My thanks to Calandra Thurrott for her photos and article on "Jane Villa-Lobos, Because we Asked." What a beautiful yard! Thanks Jane and Calandra for sharing with us!

But there is also another place of beauty that is near and dear to our hearts and that is Marie Selby Botanical Gardens on Sarasota Bay in Sarasota, Florida. And why is it our favorite? If you love bromeliads then you will love Selby because ***it is the only botanical garden in the world dedicated to the display and study of epiphytic bromeliads, orchids, gesneriads and ferns and other tropical plants.*** And like icing on the cake, there is a significant focus on botany, horticulture, education, historical preservation and the environment.

After an international search for a new President and Chief Executive Officer in 2014/2015, the Gardens choose Jennifer Rominiecki out of a massive three hundred applicants. She possesses twenty years of experience at major New York City cultural institutions. She served The New York Botanical Garden for 15 years in increasing roles of responsibility. She has been with Selby since February 15, 2015. She is a dynamic leader of Marie Selby Botanical Gardens and has overseen the creation and execution of a new five-year Strategic Plan for Selby Gardens, as well as the development of a new Master Site Plan.

In August 2018, Selby's Board of Directors praised Jennifer Rominiecki for her successful efforts related to fundraising and 'setting clear vision' for the attraction's future and extended her contract for another ten years.

The groundbreaking for the first phase of the development happened at Selby on June 3, 2021. Recently Selby announced that it has received the fifth, \$1 million-dollar gift to be used for Phase 1 of the Master Plan for its downtown Sarasota campus. To date, Selby Gardens has raised \$40.1 million or 94 percent of the \$42.5 million which will remake most of the 15 acre campus downtown. Construction has begun on Phase 1 and the three phase plan will take several years to complete. The entire project is expected to cost about \$92 million.

The strategic plan focuses on the Gardens' resources bolstering its position as the world leader in epiphytic plants while building upon the unique assets and bayfront location it possesses.

Selby Gardens is poised to become the First Net Positive Botanical Garden Complex in the World.

Selby plans to attain international visibility for their programs, especially the global contributions they make to the field of plant research.

You can help Selby by becoming a member. I have attached the information for joining. Please go online to Selby.org and join today! Tom and I have been members of the Gardens for many years and we love every minute that we spend there.

We are so blessed to have this garden in Florida and we can all have a part of the "New" Garden being built! JOIN TODAY!

Alcantarea extensa

By Tom Wolfe

The *Alcantarea extensa* has been growing in my landscape, from an offset until anthesis, for six years. It measures 7 feet (22cm) from ground to the top of the inflorescence and 4 feet (12 cm) from leaf tip to leaf tip. The leaves are 14 inches (39.5 mm) long. It has been in process of blooming for over six months. The pictures below demonstrate the growth stages of this bromeliad from budding to full bloom.

A. extensa grows on the southern portion of Espirito Santo, eastern Minos Gerais, Brazil. *A. extensa* should be treated as a complex of species, due to the wide variation observed in the herbarium material, particularly in rosette and inflorescence size and colors of bracts and floral parts. It is characterized by its long inflorescence branches and floral bracts showing a protuberance near the apex.

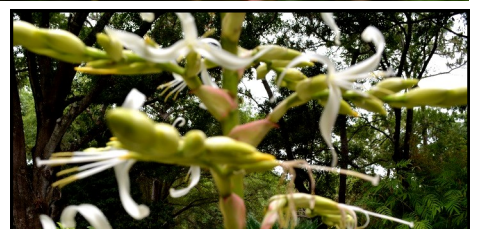


A. extensa grows in full sun and can tolerate temperatures down to the low 30's F. The leaves are wide with smooth margins.

This plant is easy and worthwhile to grow.



Grassy
Pups at
the base
of the
plant.







Jane Villa-Lobos, Because We Asked

Florida East Coast Bromeliad Society (FECBS) was fortunate enough to tour local bromeliad gardens in Palm Coast. These members of our club are a contingent known as the “Palm Coast Beauties” or more recently as the “Palm Coast Mafia”. Among those gardens were Jane’s. Lucky us, since some of the members had heard about them but hadn’t been.



Jane Villa-Lobos beautiful garden in Palm Coast, Florida



We had always wanted to know more of her background and how she is able to create such beautiful landscapes. So we asked:

What was your first bromeliad?

My first bromeliad was a red tip *Neoregelia spectabilis* which I purchased at a plant sale at Washington Oaks State Gardens.

How did you get interested in them?

I saw them under the live oak trees at Washington Oaks State Gardens and thought they were a lovely landscape plant. I became totally in love with bromeliads around 2008 when I was given bromeliads by Robert Read, who lived in Naples, FL. He was a bromeliad researcher at the Smithsonian Institution along with Lyman B. Smith when I worked there. Robert had just moved from a large piece of property into a small lot in a community in town and did not have room for all his bromeliads. In fact, I made 3 trips to his house bringing back carloads of many genera.

The artistic overhead wood structure provides a display for hanging plants as well as providing filtered light and partial shade for bromeliads



What does your interest stem from? Did you have other family involved with growing plants?

I grew up in Toledo, OH on five acres. My father was an organic chemist and had a large vegetable garden and my mother had perennial gardens. I have been gardening since I was a child and realized I wanted to have a career in botany or nature of some kind. I graduated from Miami University in Oxford, OH with a B.A. in botany and loved taxonomy.

Upon graduation I worked at the Field Museum of Natural History in Chicago for four years as a herbarium assistant for a curator who specialized on the Flora of Peru. In the mid-70s I



A beautifully landscaped island in Jane Villa-Lobos garden in Palm Coast, Florida



worked for several environmental consulting firms. In 1978 I was hired at the Smithsonian Institution's National Museum of Natural History in the Office of Biological Conservation to work on a contract with the International Union of Nature and Natural Resources (IUCN) researching endangered plants and habitats of Latin America.

Jane Villa-Lobos (red shirt) leading the garden tour for members of the Florida East Coast Bromeliad Society

After this contract ended, I became the director of the Plant Conservation Unit in the Department of Botany.

I retired in 1998 and my husband and I moved to Palm Coast.

Are you involved in other plant clubs besides FECBS and in what capacity?

I have been a member of The Garden Club at Palm Coast for 18 years and am the director of the Propagation Guild. I am also a member of the Paw Paw Chapter of the Florida Native Plant Society.

Knowing that you are FECBS' newsletter editor, generously picking it up when Jay Thurrott passed away, do you have previous experience as a newsletter editor?

Yes, while at the Smithsonian I was the editor of The Biological Conservation newsletter and "The Plant Press", the Botany Department's bi-monthly newsletter. Upon retirement I became a writer for "Plant Talk", an international plant conservation magazine and was also the subscription manager for the Americas until 2006. I also write articles for the garden club's newsletter.

How many years have you created the members roster for FECBS?
9 years

What are your favorite bromeliads?

That is a tough question. I like Neoregelias for their variety of colors and patterns, but also like Billbergias, even though their blooms are short-lived.



An attractive Bee/Wasp House in the landscape attracts beneficial insects to this beautiful garden



What issues do you have with your gardens?

I live on a saltwater canal and have lots of sun. I have planted many kinds of *Aechmea blanchettiana* and am always thrilled when they send up their beautiful inflorescence.

Being in Zone 9a, I have to worry about frosts and freezes, so have learned which bromeliads need to be covered in the winter.

What do you look forward to?

I look forward to learning more about bromeliads, expanding my collection (even though my space is limited) and sharing my knowledge with others.

I have gotten many of my friends “hooked” on bromeliads, and they have become members of FECBS.

I love to share my plants and if you come to visit my garden, you will see there are nine neighbors on my street who have some of my pups!!

Thank you, Jane! So glad we asked!

Calandra Thurrott

*All Photos in this article
by Calandra Thurrott*



SOME BENEFITS OF GOOD AIR CIRCULATION

By Tom Wolfe

Bromeliads, due to their epiphytic nature, require good air circulation. Fresh air supplies them with carbon dioxide and moisture. Plants grown in stagnant air are more apt to be attacked by scale, insects, and fungal organisms causing the bromeliads to deteriorate rapidly.

For indoor culture humidity may be a problem. Air conditioning pulls the moisture out of the air, not good for most plants. Also heating in the winter months dries out the air which is not good for most plants. However, humidifiers and fans can provide enough humidity and air circulation to keep plants happy.

I observed in California, due to their lower humidity and onshore breezes, tillandsias were growing in huge clumps. However, in Florida, due to the constant high humidity, warm temperatures and a rainy season four to six months in duration, Tillandsia clumps fall apart well before they reach the size of Tillandsias in California.

Greenhouse/Shadehouse growing can be made easier by specialty designed fans for greenhouses culture.





Eileen Hart
June 22, 1942—June 15, 2021



**Eileen Hart presenting a program
to the Bromeliad Guild of Tampa Bay**

The bromeliad world was saddened to hear of the passing of Eileen Hart. She lived in Odessa, Florida, with her husband Robert on two acres where she grew many families of plants, most of them being bromeliads and camellias. Eileen and Robert have been members of the Bromeliad Guild of Tampa Bay for many, many years. She is a retired Medical Technologist. .

She was a Master Gardener with Hillsborough County since 1950. She participated and graduated in the first Master Gardner class held in Hillsborough County.

She has been a guest speaker at many garden clubs, bromeliad clubs and camellia societies and other horticultural groups around Florida.

Being raised on a farm in South Georgia, she became very active in 4-H where she learned the apprecia-

tion of plant life both native and exotic. This was carried over to her two acres of plant paradise in Odessa. The Hart's property was on the bus tour at the Tampa Extravaganza in 2017.

Eileen received special recognition from the Southwest Florida Water Management's Northwest Hillsborough Basin Board for her commitment to water resources. She regularly attended the Governing Board meetings to speak out about the issues impacting the wellfields, lakes and wetlands in her neighborhood and the county. Her advocacy played a role in the success of many projects to save and restore lakes and preserve land for future generations.

She had an agrarian spirit that *"if your neighbor needs help, you give it. Share what you know and grow something."*

She will surely be missed!
By Tom Wolfe

*Plaque in Eileen's Garden:
The Kiss of the Sun for Pardon
The song of the Birds for Mirth
One is nearer God's heart in a Garden
Than any where else on earth.*



Tillandsia ‘Fireworks’

By Tom Wolfe

I purchased this plant from Pam Koide Hyatt, of Bird Rock Tropicals, Encinitas, California when she was guest speaker at the Tampa Extravaganza in 2017. Dr. Mark Dimmitt of Tucson, Arizona created this hybrid using *Tillandsia xerographica*, which is the seed plant, crossed with *T. roland gosselinii*, the pollen plant. It's the largest *Tillandsia* I have ever grown. This bromeliad is an outstanding plant for anyone's collection.



As a pup, I mounted it on a piece of cedar driftwood with zip ties and placed it in a crape myrtle tree where it received bright filtered sunlight. The inflorescence started emerging three months ago and is still flowering and is in good color. We admire this bromeliad's thick graceful foliage as it loops around an invisible circle. Its silvery grey leaves are wide at the base and taper to a point making an attractive, three to four foot sculptured rosette. and the silvery leaves glitter with the slightest movement of the wind. The inflorescence towers above the foliage two to three feet and its chartreus branches with a touch of red, orange and yellow make it an outstanding bromeliad. And then, like a desert after a meal, the purple flowers emerge and top the bromeliad off with yellow pollen.



The Marie Selby Botanical Gardens, Sarasota, Florida

In 2020, Selby Gardens adopted Historic Spanish Point as a second campus. This cultural landmark less than 10 miles from the Downtown Sarasota campus boasts an archaeological record that encompasses approximately 5,000 years of Florida prehistory. A onetime pioneer homestead and the former winter estate of Chicago-born Bertha Palmer, Marie Selby Botanical Gardens' Historic Spanish Point campus provides visitors the opportunity to explore that heritage via an ancient shell midden and collection of historic structures and serves as one of the largest preserves showcasing native Florida plants that is interpreted for and open to the public. It was Palmer's family who both donated the property and helped it become the first site in Sarasota County to be listed in the National Register of Historic Places.

The Selby Gardens Botany Department is the headquarters of the Mulford B. Foster Bromeliad Research Center (BRC), the Gesneriad Research Center (GRC) and the Orchid Research Centers, (ORC), as well as the Herbarium, Molecular Studies Lab, Spirit Lab, Research Library, and the staff and volunteers offices.

Selby Gardens feature the most diverse living and preserved collections of epiphytes in the world and feature more than 20,000 living plants including 5,500 orchids, 3,500 bromeliads and 1,600 other plants.

The living collection is accompanied by an herbarium, with dried and preserved specimens of tropical flora; the world's second largest spirit collection consisting of vials of mostly orchid flowers in preservative fluids and a library.

More than 150 expeditions to the tropics and subtropics have contributed to these collections. Selby Gardens' botanists have discovered or described more than 2,000 plant species previously unknown to science.

The Mulford B. Foster Bromeliad Identification Center was established in 1979 in honor of Mulford Foster, one of the leading bromeliad collectors to provide information on the horticultural and botanical aspects of the Bromeliaceae. It maintains taxonomic files for over 2800 species, genera, and subfamilies and house more than 2000 photographic slides for use by individuals, institutions and societies. (Source: Wikipedia)

In the 1982, V32 (6) Bromeliad Journal, Elmer Lorenz wrote, "Victoria Padilla was responsible for the ground work of establishing The Mulford B. Foster Bromeliad Identification Center at The Marie Selby Botanical Garden in Sarasota, Florida. During a visit to Florida in 1978, Victoria investigated the facilities of The Marie Selby Botanical Garden as a possible location for a bromeliad identification center. After an enlightening conversation with Dr. Calloway Dodson, Research Director of The Marie Selby Botanical Garden, Victoria returned to California full of enthusiasm for the establishment of the identification center in Sarasota, Florida. She presented a detailed report to me, and I, as President of The Bromeliad Society, Inc., (Elmer Lorenz was speaking as BSI President) began the formal procedures to have The Bromeliad Society's Identification Center established in Sarasota, Florida at The Marie Selby Botanical Garden. After many years of debating, investigation and searching, the Identification Center was finally established and became an important function of the Bromeliad Society, Inc. After the death of Mulford B. Foster, the Identification Center was renamed The Mulford B. Foster Identification Center in his memory."

Also another important event happened in 1982, the first bromeliad auction was held at the Corpus Christi World Conference and \$10,018 was donated to the Bromeliad Identification Center. After that the auction became a regular feature of world conferences. There isn't any record showing how much the conferences contributed but in 1992, ten years later, the WBC Tampa, raised over \$16,000 at the auction for the BIC. The bromeliad world can be proud of their World Conference auctions which contributed much to the Mulford B. Foster Identification Center.



Marie Selby Gardens continued...

It has not been an easy road for Selby to reach this point in their progress. They had to fight the Sarasota County Property appraiser's office to keep their nonprofit status. After closure for two months and loss of income due to the virus, in an unprecedented move the Property appraiser's office tried to deny their nonprofit status.

Their successful fight and subsequent win will benefit many nonprofit organization in the future. Florida Governor Ron DeSantis has now signed legislation that includes language that would protect nonprofits, like Selby, from losing their full tax-exempt status when the predominant use of the property is for charitable, religious, scientific or literary purposes.

After Tom Wolfe served as the Bromeliad Society International President for six years and held his last BSI Board meeting in Chicago, he began working on a project to establish a permanent home for the BSI in Florida.

During his time as President, Tom realized the difficulty in dealing with issues because the BSI did not have a permanent address and a place where records of the organization were consistently kept for future events. Many vendors began requiring insurance for shows in the malls, gardens, and commercial locations. The BSI was unable to obtain insurance for itself and for its affiliates for sales and shows because the address of the BSI constantly changed and the organization was considered high risk. Also in negotiating contracts for the WBC, hotel management, bus companies, food vendors, and other suppliers wanted to see previous certified records of attendance, events, and etc., which were kept by the local clubs sponsoring the events and not available to the BSI on a continuous basis. It was difficult for these vendors and insurance companies to understand that the BSI, established over 50 years as an organization, did not maintain these records at a headquarters. They said it was difficult to do business with the BSI because they operated under state laws where officers were located. They felt it was too much of a risk with future BSI officers and state locations unknown.

So as early as 2002, Tom's vision for a permanent home for the BSI began taking shape. Selby Gardens was already home for the Mulford Foster Identification Center so it made perfect sense that it would be ideal for a permanent home for the BSI.

Several times in the following ten years, Tom worked with Selby's CEO's to establish a headquarters and when it appeared that they were making good progress on the agreement, something would happen to cause the CEO to leave Selby. However, when Tom Butcher was appointed by Selby as CEO, they were able to negotiate an agreement between Selby and the BSI. Selby would hire and supervise a part-time employee whose main duties would be to maintain the BSI membership database; oversee the BSI Library to be moved to Selby; oversee the archives file cabinet; assist visiting scientists and interns studying bromeliads; welcoming BSI members who stop by as visitors; answer members questions via email, mail or phone; assist in the digitalization of the bromeliad research center files; and provide the BSI with the needed permanent headquarters address and phone number. The headquarters would be housed in the building with Harry Luther on the grounds of Selby Gardens. In 2012 at the Orlandiana World Bromeliad Conference, Tom took the proposal to the BSI Board for the last step in the approval process. He presented the project to the Board of Directors to establish a world headquarters on the grounds of Selby Gardens. BSI President, Jay Thurrott and others, supported the agreement and had also met at Selby with Mr. Butcher, Harry Luther and Bruce Holst, to assist in working out the details of the agreement.

Tom's vision and desire was to see Selby Gardens and the BSI sail into the future together. However, the BSI Board failed to pass the motion and so we lost out bid on establishing the BSI headquarters at Selby Gardens. Today Selby is sailing into the future with astronomical speed! We love Selby Gardens and their plans and work will have lasting effects far into the future for many people and especially our children and grandchildren, who already love visiting Selby.



This is one of the greatest opportunities and projects of our time.

A way to prepare for the future of bromeliads!

Will you join today?

Membership When you become a member of Selby Gardens, you receive access to **45 acres of bayfront sanctuaries**. 15 acres Selby Gardens, Downtown Sarasota and 30 acres Historical Spanish Park

Single Member Level \$75

Membership for 1 adult
Admission for 2 children ages 5-17
1 half-price adult guest per visit

Family Member Level \$150

Membership for 2 adults, 1 caregiver
Admission for 4 children ages 5-17
4 half-price adult guests per visit

Dual Member Level \$100

Membership for 2 adults
Admission for 2 children ages 5-17
2 half-price adult guests per visit

Patron Member Level \$300

Membership for 2 adults, 1 caregiver
Admission for 4 children ages 5-17

All Member Levels Include:

- Unlimited free daytime member admission to Selby Gardens' Downtown Sarasota and Historic Spanish Point campuses.
- Free admission for children under age four.
- Reciprocal admission to more than **300 gardens** in the U.S. and Canada through the American Horticultural Society.
- Free admission to Garden Music Series at Downtown Sarasota campus and Sunset Music Series at Historic Spanish Point campus.
- Invitation to Members-only preview of our two major The Living Museum ® exhibitions before they open to the public.
- 10% discount on all plants and merchandise in The Garden Shop and Selby House Cafe.
- Subscription to The Sanctuary member magazine.
- Use of Selby Gardens' research library by appointment.
- Discounts and special offers through our Area Business Discounts program.
- Dual level and above include two named members and receive two membership cards; additional visitors are considered guests.

***Be a part of this once in a lifetime event
Go online to Selby.org and join!
Your membership helps the Gardens!***



PLAN A TRIP TO SELBY TO SEE THESE EXHIBITS!

Exhibits run July 10, 2021 to September 26, 2021

Exhibit: In Dialogue with Nature: Glass in the Gardens

Selby Gardens and the Duncan McClellan Gallery in St. Petersburg present the fourth annual summer glass show at Selby Gardens'. This year's exhibition will feature nature-inspired glass work created exclusively by Duncan McClellan which will be displayed in the Tropical Conservatory and throughout the Gardens against a backdrop of lush flowers and plants.

Exhibit: We Dream a World: The Highwaymen

African American Landscape Painters of Mid-Century Florida

These African American artists were entrepreneurial landscape artists in segregated Florida beginning in the 1950s. Mostly self-taught, these artists were shut out of museums and art galleries due to living in the segregated south. Instead of settling for traditional labor jobs in the agricultural industry, however, they forged ahead and found success selling their works to consumers along Florida's Atlantic coast. This exhibition will be presented in collaboration with the [Sarasota African American Cultural Coalition](#).

Curated by Radiah Lovette Harper, the Florida Highwaymen exhibit will explore the artists' use of native botanical imagery to achieve economic success within the confines of a still segregated Florida. Harper is a museum professional with more than 30 years of experience. Prior to launching her Arts and Museum Management consulting firm. Harper served in leadership roles at several organizations such as Vice Director of Education and Program Development at the Brooklyn Museum, NY and as Assistant Professor at the Teachers College of Columbia University. Committed to racial equity and justice, Harper supports dialogue and collaboration to promote action for becoming truly inclusive and accessible.

LOCATION: Downtown Sarasota Campus

1534 Mound Street, Sarasota, FL 34236, USA

DATE: Jul 10 2021 - Sep 26 2021

TIME: 10:00 am - 5:00 pm*

Now Open: 2nd Location: Historic Spanish Point Campus

337 North Tamiami Trail, Osprey, FL 34229

Hours: Open daily 10 a.m. - 5 p.m.*

****Closed Christmas Day***

EXHIBIT: Seeing the Invisible starting September 21, 2021

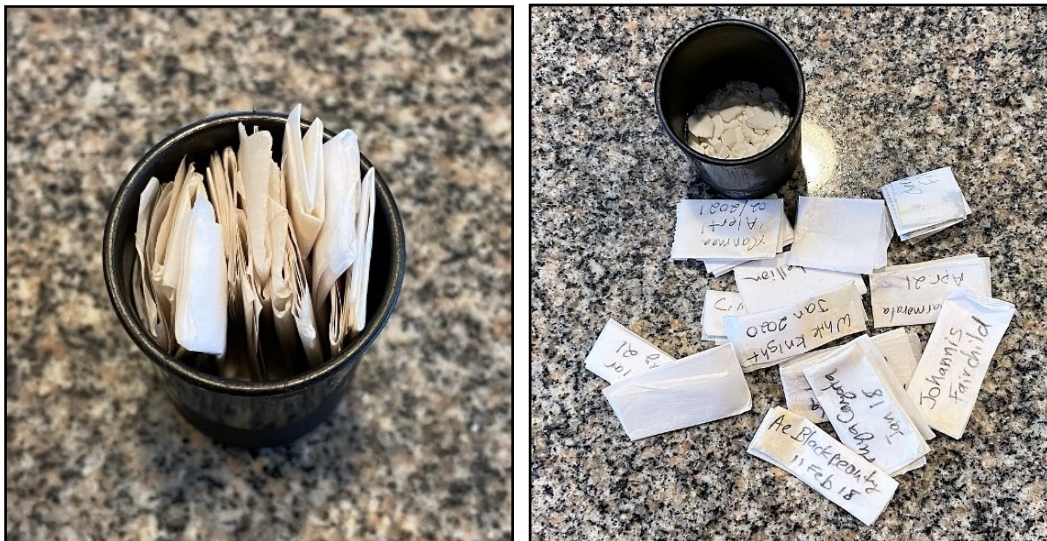


Using Frozen Pollen in Hybridization

By Nick Bethmann

I think the first time I started to think about frozen pollen was when I asked somebody on some Internet forum to freeze some pollen from a bromeliad I didn't have and then mail it to me. My idea was rejected and honestly, I never have actually tried doing that so I don't know if that even works but it did get me to start thinking about freezing pollen. Eventually I started collecting, freezing and using frozen pollen with great success. I've been able to successfully use pollen that was over 5 years old. I've never had an issue with it reaching an end-of-life date.

My first attempts in freezing pollen involved removing anthers and then putting them in little foil packets. I also decided to put the foil packets into old film containers that I filled about one quarter full of "Damp Rid" desiccant. This actually worked but I found the foil was too bulky and you couldn't write on it. I soon switched to parchment paper which is much less bulky and can be written on. I started keeping a spread sheet of all the frozen pollen I had and at the peak I was up to 3 film containers of pollen in the freezer.



For a while there, every time I had a flowering bromeliad, I was looking through my pollen database to see what I wanted to cross it with. I rarely used fresh pollen to do crosses and I started doing lots of bigeneric crosses since I always had lots of pollen to try. However, Francis, Jean, Wilma and Irma conspired to wreck my pollen collections. Those hurricanes caused me to lose my pollen collection as I lost power for many days but I just started collecting new pollen and soon had my collection refilled.

Collecting pollen is actually more work than you would think but it's still easy. I start by cutting out a piece of parchment paper, something like 1.5 inches square. I then fold it up and write



Using Frozen Pollen in Hybridization *Continued...*

Collecting pollen is actually more work than you would think but it's still easy. I start by cutting out a piece of parchment paper, something like 1.5 inches square. I then fold it up and write the name and date of the outside of the paper. I then go out and rip out as many flowers as I can find. I do this in the morning or whenever the flowers have recently opened. I typically use a set of needle nose pliers and take out the entire flower so I don't crush the anthers. Once I have the flowers I'll sit down at my desk and using some tweezers carefully strip the flower to get to the anthers and then grab each anther and set it on the parchment paper. The anthers are typically sticky and it sometimes takes a bit of work to get the anther off the tweezers and onto the paper. I try to get at least 3 flowers as that gives me a decent amount of pollen to use. When I'm done, I fold the parchment paper back up and stick it in the film container resting on top of the desiccant. I try to center the anthers in the middle of the paper so that no pollen leaks. As far as I know, I've never had cross contamination between the packets.

Using frozen pollen can be really easy. You really don't have to worry about defrosting the pollen. Just grab a few frozen anthers and go. I typically open up the paper packet and grab a few anthers and put them on a folded business card. Be very careful with the dried anthers as they will easily blow away. I typically do my crosses on a work bench in the garage out of the wind with good light. Some plants are trivial to cross as the stigma is just sticking out there and easy to access. Billbergias, most Aechmeas and many other species are really easy to cross as the stigma is easy to get to. If you can't see the stigma, you should use tweezers or a tooth pick to open up the flower and then carefully start removing anthers until you can see the stigma. Once you can see the target grab a dried-out anther with tweezers and rub the pollen end of the anther on the stigma. Don't be concerned that you don't see a transfer of pollen to the stigma, it's happening. Some plants will have lots of stigmatic fluid but others don't seem to have any, it doesn't matter, just be sure to pollinate within a few hours of the flower opening.

So, who is using frozen pollen? Not very many people from what I can tell. I've asked many hybridizers if they use frozen pollen and they all say no. Grant Groves told me that when he wants to cross two plants, he just gasses them to make them bloom at the same time and then he can cross with fresh pollen. I think that is what many hybridizers do or they just cross with whatever is in bloom at the time. Obviously, this works, but if you want more options then you should start freezing pollen. And if someone wants to try freezing and mailing pollen, let me know as I'd like to see if that really works.

