



FLORIDA COUNCIL OF BROMELIAD SOCIETIES

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& September
2023





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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

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If you have questions regarding your contribution, please call Sudi at 352-504-6162.



FRONT COVER: *Neoregelia correia araujo*
Photo by Carol Wolfe



2023 FCBS OFFICERS & MEMBERS



Sandy Burnett
2023 Chairman
Gainesville
Bromeliad Society



Greg Kolojeski
2023 Vice Chairman
Seminole Bromeliad &
Tropical Plant Society

Julie Stein
2023 Secretary
Caloosahatchee
Bromeliad
Society



Sudi Hipsley
2023 Treasurer
Seminole Bromeliad &
Tropical Plant Society



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Bromeliad Society of Central Florida
Mike McMahon & Mike Saunders

Bromeliad Society of Palm Beaches
Tom Ramiccio

Bromeliad Society of South Florida
Michael Michalski & Patty Gonzalez

Caloosahatchee Bromeliad Society
Vicky Chirnside & Julie Stein

Florida East Coast Bromeliad Society
Calandra Thurrott & Jack Dunlop

Florida West Coast Bromeliad Society
Susan Sousa & Richard Poole

Gainesville Bromeliad Society
Sandy Burnett & Steven Provost

Sarasota Bromeliad Society
Marian & Mark Kennell

**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, Vice Chairman

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

FCBS Roster Maintenance:
Susan Sousa

FCBS Webmaster:
Michael Andreas, Webmaster@FCBS.org

BSI Officers from Florida:
Gregory Kolojeski, President
Barbara Partagas, Secretary
Tom Ramiccio, Treasurer

BSI Directors from Florida:
Alan Herndon
Richard Poole
Rick Ryals
Mike Saunders

*I love Bromeliads... By Carol Wolfe, Editor*

Greetings FCBS members,

The 2023 FCBS Extravaganza held at the West Palm Beach Marriott on July 28-29, 2023, was a huge success with registration set at 200 attendees and the goal reached several weeks before the event. This was our best ever Extravaganza attendance as the previous highest attendance was 175 registrants. Congratulations to Tom Ramiccio and his team, Margo Caldý, Lyn Davis, Jim Jacson, Lee Magnuson. Kathy Silverio and the Bromeliad Society of the Palm Beaches for a great job hosting the event. Speakers Chester Skotak from Costa Rica, Eloise Beach from Apopka, Florida and David Shiigi from Hawaii did not disappoint. Maureen Adelman, Editor of the *BromeliAdvisory*, wrote a beautiful article about the speakers called "*The Extravaganza Rocks*"! I know you will enjoy reading her detailed article starting on page five.

My thanks to Dr. Teresa Yawn née Cooper for the interesting article on Dr. Howard Frank. Teresa worked with Dr. Frank for many years and shares with us his concern and passion for finding a solution to the weevil problem. He will surely be missed by all of us. And our thanks to Dr. Cooper for her many years of support, work, and love of bromeliads.

My thanks to Tom for his article about Dr. Frank and the FCBS weevil fund. Dr. Frank would communicate with Tom but occasionally I would receive emails from him with generous compliments about the newsletter. I was honored that he would take the time to correspond.

For many years the Gainesville club annually invited Tom to give the club a bromeliad program. Each year Tom would create a new bromeliad program and in the following months would share the program with bromeliad clubs, garden clubs, and Master Gardeners groups. At Gainesville, Dr. Frank would download the PowerPoint program on his computer to connect to the University's projector. On one occasion he showed me all of Tom's programs were on his computer. As we looked at the titles of the programs, he shook his head and said I just don't know how he comes up with a different program every year!

Recently we were privileged to go to Gainesville to give a program and for the first time in many years, Dr. Frank was not there. However, he would have been so proud of the room full of members, visitors, and beautiful bromeliads, and to know that the Gainesville Bromeliad Society is dynamic and flourishing!

Thanks to Brian Corey for the beautiful article on his wife, Linda Sheetz. She lead an interesting life and was a great asset to the Florida West Coast Bromeliad Society as Editor of the Newsletter. She worked hard and produced an excellent newsletter. She is greatly missed.

Thanks to Mike McMahon for allowing me to reprint his President's article for the BSCF Newsletter. I thought you would enjoy reading it too.

As always, thanks to my publication team for their help: Calandra Thurrott, Tom Wolfe, and Greg Kolojeski. Wishing you a great summer and lots of new bromeliads!

THE EXTRAVAGANZA ROCKS

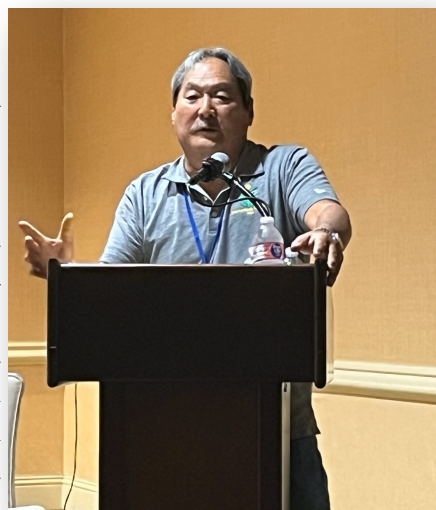
By Maureen Adelman, Editor of the *BromeliAdvisory*

For those who attended the West Palm Beach FCBS Extravaganza, it was a fabulous weekend. Check-in wasn't until 3 pm, so if you went up early in the day there was time for antiquing at Antique Row (Southern Blvd. and S. Dixie Highway) or ogling the mansions and shops of Palm Beach. Friday night was a delicious barbeque for 250 people which was moved inside due to the heat (thank you). After dinner, everyone went to bromeliad heaven. This was the ball-room filled with thousands of plants from 17 vendors. The registrants had 2 hours to shop to their heart's content. The room was open to the public the next day but by then several vendors had sold out. Some people bought nothing; some people bought boxes and boxes of plants. Everyone was friendly, talkative, and generous with advice.

Saturday morning registrants could shop for plants some more, lounge at the pool, or do more sightseeing. At 1pm the speakers started and they did not disappoint.



David Shiigi is a long-time friend of Chester Skotak and Grant Groves who turned a hobby into a business. He worked for both Libby and Dole Foods while in high school. He encountered an old man on the big island who was selling bromeliads for \$1 each. Bromeliads

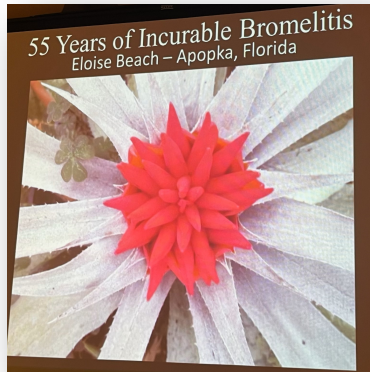


David Shiigi Photo by Marilyn Byram

were hard to find in the 70s so he befriended people who grew them and also went on a collecting expedition with Chester Skotak and Grant Groves in 1976. He started his current nursery on 10 acres in Hilo in 1991. In addition to the vrieseas for which he is known, he also grows neos., guzmanias, dyckias and cut flowers. He said he keeps about 1 in 1500 seedlings which show variegation. His daughter is now hybridizing also. He is a real family man who has named many plants after family members and friends.

Eloise Beach titled her humorous talk, "55 Years of Incurable Bromelitis." She is a retired commercial grower in Apopka, Fl who propagates Chester Skotak's plants and then sells them to Tropicflora in Sarasota. She is also a bromeliad judge and a Life Member of BSI. As a teenager she became enamored of bromeliads and visited with many of the state's bromeliad pioneers, including Mulford Foster who was a friend and mentor. At this time she also became best friends with Chester Skotak. At one time she had 4 commercial greenhouses but is now down to 2. She has more than 700 clones of Chester's hybrids. She is a founding member and first president of the Bromeliad Society of Central Florida as well as a former Director of BSI.

Continues next page



Interestingly, she was a computer science major who left that field when the pull of bromeliads became too great. In 2006 she helped Chester in his search for Miss Fortuna, a rare brom. The search produced a book by Chester. Another expedition with 78 year old Francisco Olivera resulted in the discovery of *Pepinia leopoldii* in Venezuela. They traveled by water



Eloise Beach

Photo by Marilyn Byram

until there was none, then backpacked for 3 days, climbed a mountain and went down to a lake. But she found the *leopoldii*. She grew the first *Ae. brevicolis* and brought back *Cryptanthus* 'Brittle Star' from California. She gave some good advice for growers new and old. Variegated species will not grow from seed and complex hybrids must be grown from pups. She said we should always look for the best quality in hybrids and eliminate albinos and other offspring that would slow down the production of quality hybrids. She recommends the "punch and turn on side" method of producing more pups. Punch a hole in the plant you want to propagate and turn it on its side to produce more pups. For neos, she recommends pulling out the flower which is not much anyway and instead filling in the hole with fertilizer to produce more pups. Label all pups because you will inevitably forget which is which. She also recommends putting fertilizer such as Osmocote in the leaf axils in small amounts. She ices her plants to protect them from cold damage. She starts her sprinklers and keeps them on all night during a freeze. This coats the plants in ice but helps them survive a freeze. The good news, which she told us later, is that even though Chester is retiring, she still has many of his plants in the propagation pipeline so there will be more new releases for us to enjoy and empty our pocketbooks for.

Finally it was time for the most anticipated speaker, Chester Skotak whose talk was titled, "Organized Chaos". Chester was humorous and spoke way beyond his time limit. He asked us if we wanted him to stop and, just like in a rock concert, the audience loudly urged him to continue. Chester was born in Texas but moved to Costa Rica in 1978. He still leads expeditions. In the past he travelled to Ecuador with our very own Ed Prince. Variegated bromeliads are his specialty but he grows more *guzmania* than anything else. He is known as the best hybridizer in the world and has sold millions of bromeliads. He started out collecting cactus in Texas. He had a greenhouse as a boy in Houston. He was always encouraged by his father who was a Flying Tiger with Chennault's forces in China during WWII.

Chester states there are still many, many plants yet to be discovered and laments the soy farms destroying habitat in Brazil and elsewhere. He also had advice for growers. He says fertilized plants bloom sooner. He recommends fertilizing once a week with a soluble fertilizer spray. He uses Peters 20-20-20 and Osmocote when potting. Despite the frequent fertilizing he does he advises do not overfertilize as it will burn the plant and stain the leaves. He says all *imperialis* are easy to grow from seed. He pollinates 7 days a week in the morning. He sends his fertilized seeds to Belgium where they break the pods open, treat them for fungus and start the seedlings.

Continues next page

**ORGANIZED CHAOS CHESTER SKOTAK—COSTA RICA**

us a pineapple that was pollinated and produced seed right in the fruit which makes it hard to eat. During any month he will save one (1) pineapple plant and throw away 5,000. He told us the sugar content of the pineapple is measured in brics. Sixteen (16) brics is a sweet fruit. In addition to hybridizing the fruit he has had to work on creating thicker stalks to support the bigger and heavier pineapples he is producing. The seedlings are fertilized with osmocote but first he rinses the osmocote to remove the gel covering to prevent fungus.

Chester states the Ae. fasciata are being heavily hybridized and we will be seeing some very different plants in the near future. He then showed slides of some of his new releases which are shown in some of the photos to follow.

The day ended with a banquet featuring both a silent and live auction. The plants were beautiful but most sold for very high prices, a number of them for several hundred dollars. Bromeliad enthusiasts want what they want and they paid dearly to get them. The next day a brunch and garden tour was held at the home of Betty and Joe Liberucci. Despite the heat it was a pleasant and well attended brunch and Joe's garden was full of plants of every kind, including some stunning cycads.

Reprint with permission from the August, 2023 BromeliAdvisory, Newsletter of The Bromeliad Society of South Florida

Of a million seedlings maybe 100,000 are saved. The seedlings are returned to him in Costa Rica at about 8 months of age. Guzmania are his biggest sellers, being the number one plant in Europe.

Chester uses ethylene gas to make his broms flower. To hybridize properly, you must know how many days it takes after gassing for various hybrid parents to flower so that both plants will be in flower at the same time. About 30 years ago he started hybridizing pineapples and now has over 70,000 plants. A lot of his hybrids are bright red. Some crosses take 30 years to perfect. If the ascorbic acid content is over 40% you can ship the fruit. If it is under that they need to go to a local market and very quickly. He showed

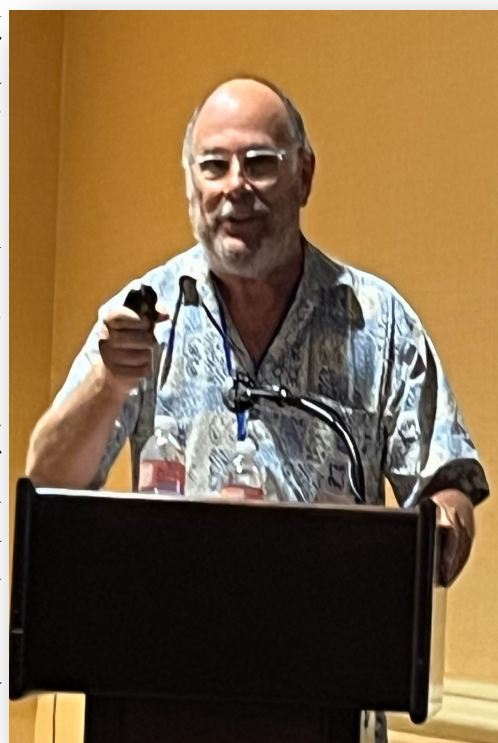
**Chester Skotak of Costa Rico**

Photo by Marilyn Byram



President's Message The Bromeliad Society of Central Florida

By Mike McMahon



Most of our members are aware that BSCF is a member of the Florida Council of Bromeliad Societies. If reminded, they recall being emailed a newsletter on occasion. Some actually read it. Several recall that we begged off hosting a Council meeting in 2022 because it was going to be too costly. Those at the July meeting learned that BSCF is hosting an October meeting. (And, thanks to John Boardman making his home available, we do not have to rent a venue or pay restaurant banquet rates to provide lunch to the attendees.) Beyond that, many know nothing about the Council. That is unfortunate, especially since BSCF was instrumental in forming it.

Way back in 1976, BSCF took on the responsibility of hosting the 1980 World Bromeliad Conference. That was a really crazy commitment to make. World Conferences had been held in California and cities with large local societies, not in Florida. There was a handful of BSCF members who had been to a World Conference, but most had not and BSCF did not have all that many members. Just figuring out what needed to be done was no small job when snail mail was the only mail. Actually doing it was a bigger job than BSCF members could do alone. We needed help.

BSCF's World Conference project was led by Carol Johnson. (Her Pineapple Place nursery off of Markham Woods Rd. was sort of the Michael's Bromeliads of the day, although not nearly so extensive.) For some time the idea had floated around that bromeliad societies around the state should combine together in some way. Nat Deleon in Miami was a major supporter of doing something. BSCF's need for help putting on the Conference became a motivator. An organizational meeting to form FCBS was held in the Longwood home of Carol Johnson on Sunday, June 17, 1977. Attending for BSCF were Carol, Eloise Beach and Bud Martin (who soon thereafter was a founder of the Seminole Bromeliad Society). There were representatives from five other societies. By the time Florida Council was actually formed, there were nine member societies.

The idea was simply that the several local societies could do more together than alone. There were some big ideas, like putting together speaker programs with leading experts touring the societies around the state; having a major magazine; having an annual statewide judged show; and so much more. Those big ideas took a big step forward the following year when the first state-wide judged show was held in Miami sponsored by FCBS and hosted by the Bromeliad Society of South Florida. It was a 3-day test run for putting on a big judged show at the Orlando 1980 World Conference. And, the Council commenced a Judging School so there would be sufficient trained judges for shows around the state. From that point onward, a number of societies began having annual judged shows, including BSCF.



The big ideas proved more bold than realistic. Grande magazine was grand. It was glossy full color, very professionally produced and filled with interesting articles about broms and personalities in the Florida hobby. It was also bankrupt after two issues, but subscribers had been promised four. They eventually got all four, and then Grande folded. The FCBS Quarterly Newsletter was a cheap substitute of sorts. The idea of an annual state-wide judged show turned into the biennial Bromeliad Extravaganza, pulling together brom sellers from all around the state and a lecture series, but without a judged show, which was too much work. Judged shows are not so popular anymore, but FCBS still sponsors the training of judges.

While the big ideas of the 1970s largely fell by the wayside, Florida Council has remained a means for societies to share information and pool resources. Many of the speakers at BSCF's monthly meetings are invited because we learn of them and their programs through Florida Council and its publications. The FCBS Photo Index of bromeliads is an internet resource recognized world over and available for free. The Council compiles the rosters of all member societies and supplies everyone with a statewide directory every year, so we do not need to do one of our own.

When the invasive 'Evil Weevil' came on the scene, Florida Council was the vehicle for pooling funds and resources to promote research in combating the invader. It continues to seek worthy research for funding. While you may not hear all that much about Florida Council, the thing to know is that FCBS connects societies around the state. When a need arises, there is a way to pull together. That is important.

Our Bylaws provide for BSCF to be a member of FCBS. We pay dues each year and have the duty to host quarterly meetings in rotation with the other member societies. This year we gave further support by running an ad in the Extravaganza program, and arranging the donation of plants for the Rare Plant Auction. We do our part to keep it going. Now you know why.

Reprinted with permission from the August BSCF Newsletter



Tillandsia fascicula forma alba Photo: Carol Wolfe



Tillandsia balbisiana

Photo: Carol Wolfe



Linda Sheetz 1942 - 2022

Editor of the FWCBS Newsletter
By Brian Corey

Linda Sheetz, a longtime member of the Florida West Coast Bromeliad Society and editor of the FWCBS newsletter, passed away on November 10, 2022, at the age of 80. Cause of death was complications of esophageal cancer, with which she had been diagnosed two months earlier.

Linda lived life to the fullest. She loved being outdoors, whether scuba diving or gardening, inline skating or sailing, climbing a mountain or driving an airboat in the Everglades. She had a wide range of interests, from art to science, history to soccer, movies to sci-fi. She enjoyed speaking French in her French conversation group or, preferably, in France. Two of her greatest passions were golden retrievers, which she bred and raised for many years, and, for the past 30 years, bromeliads. At one time or another she had over 850 different bromeliad species and hybrids growing in the yard around her home in St. Petersburg -- plants she was always happy to share with fellow enthusiasts.



Linda Sheetz

Linda joined FWCBS in 1997 and served as an officer or FCBS representative for many years. As editor of the newsletter from 2009 to 2022, she filled it with news, photos, and tidbits about bromeliad curiosities and horticulture. If a topic had her stymied, she would consult with her many bromeliad friends around the world.

The largest section of each of her newsletters was always a summary of the talk given at the previous month's FWCBS meeting. Members often remarked to her that they learned more from her summary than they had from the talk itself, and they would ask, Did I miss something during the talk? Her secret was that, if she felt the speaker had not covered the topic accurately or in sufficient depth, she would supplement her notes on the talk with her own research. She wanted the newsletter to be a source of reliable information and not just a collection of pretty pictures and random remarks.

Linda was born in Bradenton, FL, 20 miles from St. Petersburg across the Skyway Bridge. She sometimes joked that people might think, "The poor dear, in her lifetime she only made it across the Skyway Bridge." But her career took her far afield, to the Everglades, the Rockies, Cape Cod, Africa, and the Caribbean. She grew up in Miami and earned a B.A. in French and Spanish from the University of Miami in 1963. After marrying and living in Phoenix, Denver, and Baltimore before returning to Miami, she taught junior high French and Spanish for several years while raising two young children. In her early 30s, looking for a career change and wanting to pursue her interest in science, she attended Miami Dade College and then Florida International University, from which she received a B.S. in geology. Jobs as a geologist or hydrologist followed with Everglades National Park, U.S. Geological Survey, and two oil companies.



Brian Corey and wife, Linda Sheetz

At ARCO, she traveled deep into the remote mountains of Montana to do the geological interpretation of rock cores drilled in exploratory oil wells. With the Geological Survey, she worked on research cruises to map the sea floor off the west coast of Africa and in the Caribbean. In 1988 she moved back to Florida and for 25 years thereafter did environmental assessment and clean-up at contaminated sites. As she would say, sometimes she was cleaning up oil produced by the companies where she once worked, thereby completing the circle.

Linda was known for her intelligence, wit, charm, playfulness, and occasional sassiness. She liked helping people and making new friends. No conversation topic was off-limits. She could be assertive, as circumstances dictated, and she would sometimes ask challenging questions, but in a gentle, nonjudgmental way.

Linda had a wonderful sense of humor, even in her last days. When her son came into her hospice room on the day she died, he asked, "Can you hear me, Mom?" Linda shook her head, no. "Are you messing with me?" Linda nodded her head, yes.

During her last week she could speak only with difficulty and in a low, hoarse whisper. Four days before she died, she managed her last extended conversation. Her husband asked whether she wanted to talk about her bromeliads, and she said that was just what she was thinking about. She told him which of her bromeliads were most special, which she wanted him to keep, and which to give away and to whom. Up to the very end, bromeliads were a source of joy and solace for Linda.



David Shiigi from Hawaii and Linda Sheetz





Below are the "draft minutes" of the FCBS meeting and will be voted on by the representatives at the next FCBS meeting held in October 2023. Any corrections or changes will be published in the next issue of the FCBS Newsletter.

Florida Council of Bromeliad Societies
"DRAFT" MINUTES OF THE FLORIDA COUNCIL OF BROMELIAD SOCIETIES
MEETING
Hosted by the Caloosahatchee Bromeliad Society
Saturday, June 24, 2023



Opening: Chairman Sandy Burnett called the meeting to order at 1:05 PM at the home of Julie Stein, 7594 Grande Pine Rd, Bokeelia, FL 33922

FCBS Member Representatives Present: Caloosahatchee Bromeliad Society: Vicky Chirnside and Julie Stein; Florida East Coast Bromeliad Society: Calandra Thurrott; Florida West Coast Bromeliad Society: Susan Sousa and Richard Poole; Gainesville Bromeliad Society: Sandy Burnett and Steve Provost; Sarasota Bromeliad Society: Marian and Mark Kennell; Seminole Bromeliad and Tropical Plant Society: Sudi Hipsley and Greg Kolojeski; Bromeliad Society of South Florida: Sandy Roth and Lori Weyrick.

We all introduced ourselves as we welcomed BSSF members Sandy Roth and Lorie Weyrick to the meeting since Mike Michalski and Patty Gonzalez were traveling.

Officers Reports:

Secretary: Minutes of February 2023 meeting were presented by Sandy Burnett. A motion to approve by Vicky Chirnside passed by unanimous vote. Zoom Meeting 4-13-2023 minutes regarding the Goode donation to BSPB were accepted. Susan made a motion and it was unanimously passed

Treasurer Report: Sudi Hipsley submitted the Treasurer's report. The Audit Report by Eve Krauth, Treasurer for FECBS was accepted and found accurate. Greg Kolojeski motioned to approve the Treasurer's Report and it was passed by unanimous vote.

Committee Reports:

Webmaster Report: Michael Andreas reported that a link for the Extravaganza has been posted on the website front page as well as the May 2023 FCBS newsletter. A reminder to all of us to use and pass on the correct url in order to view photos on the FCBS website. <https://www.fcbs.org> Photos from Sebastian Sant were posted We need to check with our individual societies for correct contact and meeting info. Email webmaster@fcbs.org with any events to be posted.

Newsletter Report: Carol Wolfe was feeling unwell and unable to attend and very kindly considered all of us in not exposing anyone just in case. Sandy Burnett commented on our always beautiful, informative newsletter that Carol writes.

Weevil Committee: Tom Wolfe, Chair was unable to attend. Richard Poole, Committee CoChair mentioned Bruce Holtz is actively recruiting for research/study and through BSI can offer scholarships. A dual approach of botany and entomology is desired. There was discussion that the Weevil Fund balance may be accessed at any time, as needed.

FCBS Roster: Susan Sousa used Excel to create the Roster this year. The Access program will not be necessary to use for future roster updates. Extra rosters were printed since they are being distributed to each Society for their members. Word is used to generate the booklet to send to the printer. We need to remind our societies to ask members to check their information for accuracy so it can be updated if necessary. Excel can be exported to a pdf and sent to each society via email. Steve Provost suggested that we put the roster topic on the agenda for the October meeting.

Facebook page: Greg Kolojeski



Judges School: Vicky Chirnside reported the date of the last class will be held June 25 and is at the Fort Myers-Lee County Garden Council Building. There are 7 attendees. Makeup classes are needed by a few people and those dates will be set soon.

Archives: Steven Provost met with David Benjamin, Head of Special Collections and University Archives at UCF in Orlando (location of the BSI Archives) on 11/29/22. Steven was recently informed by Mr. Benjamin that digitizing began about 5-6 weeks prior to today's meeting and it is being fitted in with other digitization work they are doing. Mr Benjamin is willing to come to the 2024 WBC and give a report on the Archives. Some materials received by FCBS are interviews with Mulford Foster-2 VCR tapes and a CD of the interviews.

Old Business

BSI News Greg Kolojeski got hotel info for the next World Bromeliad Conference which will be held at the same Marriott as the Extravaganza. The early booking room rate is \$179.00 plus tax and rooms may be booked now. Parking is \$10.00 daily. It will be held May 22-25, 2024 Keynote Speaker will be Andrew Devonshire "Hybridizing the Kiwi Way". They will work on more speakers after the Extravaganza.

Extravaganza 2023: A donation of \$2,000.00 by Steve and Martha Goode has been clarified and unanimously approved for use for The Extravaganza 2023 by The Bromeliad Society of the Palm Beaches. Donation of \$654.00 from Caloosahatchee Bromeliad Society is going to the General Fund, Members of the FCBS volunteered their help to be table monitors for the silent auction. For the live auction they volunteered to show the items as each was auctioned as well as acting as runners to get the items to the checkout area

Scholarship Program: Richard Poole motioned to donate \$500.00 to the BSI Scholarship Program, it was unanimously approved. Awaiting a report from Bruce Holtz to decide whether to increase the amount.

FCBS investments: Greg Kolojeski discussed Treasury Bills as the most secure investments available. Treasury Direct is the more common method-they're tied to the bank account. At maturity the funds are repaid to the bank account. Greg made a motion, carried and unanimously passed to allow the Treasurer to invest and reinvest approved FCBS investment fund amounts in appropriate Treasury Direct Account investments at the Treasurer's discretion. The purpose of this was not to need future Board approval for already approved investment amounts so that funds were not sitting uninvested after an investment matured and also to give the Treasurer discretion for selecting the appropriate term of the investments in order to maximize the interest rate return. The understanding is this only applies to amounts already approved by the Board to be invested. FCBS Meeting Minutes After brief discussion on the topic Sudi Hipsley made a motion to post draft/preliminary minutes to the FCBS website. Motion carried and all approved.

New Business:

FCBS Facebook Page After a brief discussion and after a motion was made, it was agreed to add Julie Stein as an Administrator for the FCBS Facebook page

Society News: Each of the societies with reps in attendance reviewed their recent speakers and events. Some of the topics for speakers included honeybees, creative bromeliad mounting and landscape. BSSF mentioned they held a fundraiser to pay for bus trips for their society. Some of the speakers mentioned were Chip Jones, Shane Malloy, David Sand and Guillermo Rivera.

BSCF is hosting the next meeting of FCBS on Saturday, October 28th. Details coming later. Richard Poole proposed that the Weevil Fund be renamed the "E Howard Frank Memorial Scholarship Fund for the Study and Eradication of the Mexican Bromeliad Weevil" and was approved unanimously. We will put this change on hold for more discussion of how to Honor Howard Frank. The Weevil Fund is officially named the Al Muzzell Memorial Weevil Fund. Since Al Muzzell was honored in that way, we will look for another way to honor the work of Dr Frank Motion to

Adjourn: A motion to adjourn was made and approved with the meeting adjourned at 3:50 PM.

Respectfully submitted by Julie Stein



Al Muzzell Memorial Weevil Fund

By Carol Wolfe

The FCBS weevil fund, named the Al Muzzell Memorial Weevil Fund, is in honor of Al Muzzell. Many of the FCBS members did not have the privilege of knowing Al since he passed away 12 years ago.

Who was Al? His name was Albert but in all the years I knew him, everyone call him Al. He was best known for his lifelong passion for bromeliads. Almost all bromeliad people in the State of Florida knew Al as he was always willing to travel to the clubs around the state and give programs and participate in bromeliad sales around the state. He lived in Gainesville and would load his white van to the max with bromeliads and usually arrive at the meeting just in time to give his program. He appeared to be more than a little unorganized. However, during his presentation, he would enthusiastically pull a bromeliad out of a brown paper bag and share his magic info about the plant! Al entertained many bromeliad clubs with interesting programs of his travels and knowledge of bromeliads.

Al was a founding member of the Gainesville Bromeliad Society and served as its president many times. He also served as chairman of the Florida Council of Bromeliad Societies and was instrumental during the early years of the Evil Weevil research in aiding Dr. Howard Frank in locating weevils and their pupa from the Central American forests to be used in the University of Florida research labs.

Dr. Frank reminisced about the early days of the evil weevil research and how Al drove him to the quarterly FCBS meetings so they could spread the word about the invasive weevil. They even traveled to Panama in the early 1990s to chase the weevil. "Al's enthusiasm was boundless, as much for the bromeliads we encountered there as for weevils," Dr. Frank remembered.

A South Florida native, Al developed an interest in bromeliads as a young man. He interned at Mulford and Racine Foster's "Bromel-La", where he acquired much of his expertise about early bromeliad selections and hybrids. Al's enthusiasm for learning about his plants gave him a great fund of information about their pedigrees and idiosyncrasies. Always willing to share his knowledge, a casual comment on a plant might lead him to a précis on the hybridizer or collector, when it was introduced and any problems growing it here in Florida.

After completing his degree in Horticulture from UF, Al eventually opened his own mail-order nursery, New World Bromeliads. He also became an accredited bromeliad judge and was an ardent supporter of the FCBS project to find a biological control for the "Evil Weevil", *Metamasius callizona*.

Ed and Nancy Hall, who knew Al for about 30 years, remembered spending hours talking bromeliads. When they moved to Macon, Georgia, Al stored their collection and returned it to them in their new greenhouse. "It was always interesting to visit Al's greenhouses," Ed said. "There were always interesting plants to see. During our last visit in spring of 2011, Al and a friend were creating new *Dyckia* hybrids."

Al Muzzell, passed away at age 69 on December 11, 2011. He died at the Gainesville VA Hospital after suffering from cancer and other complications. He served in Naval Signals Intelligence during the Vietnam War, was a civilian pilot, a truck driver, a landscaper and ran for local office in Gainesville. Always politically active, Al served as Chairman of the Gainesville Plan Board from 1976 through 1978.

Most of this material and picture were taken from the tribute to Al from the February 2012 FCBS Newsletter with Karen Andreas, Editor; assisted by Tom Wolfe, Howard Frank and Ed and Nancy Hall in the tribute to Al. Other material was taken from the website of the Bromeliad Society of Gainesville and their Newsletter dated January 2012, from the tribute by editor, Hjordis Owens.

In Memoriam: Dr. J. Howard Frank

13 April 1942 - 21 January 2023

By Teresa Yawn née Cooper

Dr. J. Howard Frank dedicated himself to saving Florida's native bromeliads from an invasive bromeliad-eating weevil, the Mexican bromeliad weevil (*Metamasius callizona*), for over 30 years. He was a staunch ally of the Florida Council of Bromeliad Societies (FCBS) in this effort and worked with colleagues and students towards this same goal. Dr. Frank was there in 1989



Dr. J. Howard Frank on Cerro Uyuca in Honduras, on an expedition to collect *Lixadmontia franki* to bring to Florida. October 2011.



Dr. Teresa
Yawn née
Cooper

when the Mexican bromeliad weevil was first found in Florida destroying native bromeliads.

He recognized that the weevil could cause serious damage to Florida's bromeliad populations, particularly the giant airplant (*Tillandsia utriculata*), and that the loss of these bromeliads would alter the forests they inhabited. Dr. Frank began mapping the weevil's progression in Florida, eventually spreading to 23 counties. He traveled to Mexico and found the bromeliad grower who had exported bromeliads infested with the Mexican bromeliad weevil to Florida. Dr. Frank recognized that the weevil could not be controlled by

elimination (it was already well-established in wild bromeliad populations) or by chemicals, which would be ineffective, too costly, and potentially damaging to ecosystems. He began a biological control program to search for a specialist parasitoid of bromeliad-eating weevils that could be used to control the weevil in Florida. He made 14 expeditions to Mexico and Central America from 1992 to 2010 to search for a biological control agent. The only potential biocontrol agent was a fly, initially found by Dr. Ron Cave in Honduras, of unknown genus and species. The fly was given the scientific name *Lixadmontia franki*, with "franki" in honor of Dr. Frank, to recognize all the work he had done for Florida's Bromeliads. The fly became affectionately known as Franki fly. Unfortunately, Franki fly was unable to establish itself in Florida but, in one of Dr. Frank's expeditions to Belize to search for alternative biological control agents,

Continues next page



he came across a giant airplant population that co-existed with the Mexican bromeliad weevil. The giant airplants were not just surviving, but thriving, and Dr. Frank recognized this as a potential alternate method for saving Florida's giant airplants.

Dr. Frank attended and presented at the FCBS meetings as well as many, if not all, of the local bromeliad societies that are members of the FCBS. He provided bromeliad enthusiasts with updates on the progression of the weevil invasion and the research being done to understand the biology and life history of the weevil and Florida's bromeliads. He worked with volunteers who wanted to help in the field and with students and colleagues who wanted to add to the growing catalog of research related to the weevil and Florida's bromeliads.

Dr. Frank built and maintained a website to document this progress and to provide information about bromeliads and bromeliad-eating weevils in general; the website is called Bromeliad Biota and is available online at: <https://entnemdept.ufl.edu/frank/bromeliadbiota/index.htm>. He published about 70 papers related to the weevil, Florida's bromeliads, and Frank fly in scientific journals, the Journal of BSI, and the FCBS Newsletter. And, beyond the weevil problem, Dr. Frank stepped in to stop governing bodies in Miami-Dade County from destroying ornamental bromeliads in response to a Zika outbreak (the native mosquitoes inhabiting the bromeliads are not vectors of Zika).

Dr. Frank was interested in Florida's bromeliads even before the Mexican bromeliad weevil arrived. He was intrigued by their unique growth habits and life strategies and how some, like the giant airplant, are so important to forest ecosystems. He spoke and published about the numerous species that relied on the bromeliads as hunting grounds, habitat, hiding places, and water sources. He documented the species that lived in the tank water of giant airplants, species that are found nowhere else (and, as I learned from Dr. Frank, it should be said these species are "precinctive" to Florida, not "endemic"; I write this with a smile--Dr. Frank's command of the English language was legendary) and that, with the loss of the giant airplants, these species would also be lost. The breadth and depth of the research, publications, outreach, and passion Dr. Frank had for saving Florida's bromeliads ran wide and deep. His legacy is a foundation for continuing the fight to save Florida's bromeliads and understanding why that is a worthy cause.

I met Dr. Frank in 1998 when I was an undergraduate student at the Entomology and Nematology Department at the University of Florida, where Dr. Frank was a professor. I was hired to maintain the Mexican bromeliad weevil colony he kept for research purposes. When I asked him about the weevil, he told me about Florida's bromeliads and how the weevil had arrived in Florida and begun destroying these wonderful and important plants. His telling of the story intrigued me and embarked me on a journey to help him find a solution to this problem. For the next 20 years or so, we worked together, first as professor and student and later as colleagues. He was my mentor, my friend, a human being whom I admired and loved and learned from. There were many other students, colleagues, allies, and friends touched by Dr. Frank, and he did other research, such as working with rove beetles and controlling invasive mole crickets. Dr. Frank will be missed and the world is a sadder place without him, but the world is a better place because of who and what he was and what he gave to the world.



Dr. J. Howard Frank - Dedicated to Helping the FCBS
University of Florida | UF · Department of Entomology and Nematology
Emeritus Professor, DPhil, Oxford, 1967

By Tom Wolfe

Our thanks to Dr. Teresa Yawn née Cooper for the excellent article on Dr. Frank. She did a great job of describing Dr. Frank's commitment to helping the FCBS in their forty-one year fight against the weevil, *Metamasius callizona*, starting in November 1989 until his death in January 2023.

The weevil was first discovered in a bromeliad nursery in Broward Count and southern Palm Beach County by the Division of Plant Industry inspectors. By October 1990, the weevil was found in a greenhouse in North Fort Myers. For the next three years, the weevil was found in *T. utriculata* in August 1991, outdoors in Ft. Myers, in the extreme northwest of the county, and several miles inland along the Orange River, a tributary of the Caloosahatchee River. This probably indicated transport of infested plants to Ft. Myers, and subsequent escape of the weevil into native bromeliads.

In the following years, weevils were found in parks, golf courses, greenhouses, private gardens, hammocks, pineapples, islands and twenty-two Florida counties. Dr. Frank and his team, kept records of the locations where the weevils were found as well as the locations where none existed.

In addition to Dr. Frank, a lot of other people began working on solutions to stop the spread of the weevils: Dr. Barbra Larson, Dr. Teresa Cooper, Dr. Ronald Cave, Mike and Karen Andreas, Al Muzzell, Nat DeLeon, members of the FCBS, and all Florida Bromeliad Clubs. Mike and Karen did a great job of keeping our membership current with information about the weevil on the FCBS website and documentation of the history of the weevil. For our newer members who aren't familiar with the weevil, the information can be assessed at FCBS.org.

On August 28, 2000 the Florida Council of Bromeliad Societies (FCBS) signed a contract with the State of Florida. This contract provided \$58,000 for research into controlling the evil weevil (*Metamasius callizona*). The committee estimated that the amount tripled as Florida bromeliad societies held plant sales and forwarded funds through the FCBS to support the research program. Karen Andreas was the Chairman of the Al Muzzell Weevil Fund and she handled the coordinating grant applications and processed the necessary paperwork. She and her committee did an excellent job of approving and managing the funds for UF's work. FCBS donations were used for UF's personnel for travel expenses, supplies and work by students. One-hundred percent of all donations are used for the research and related expenses of those doing the research. The FCBS does not use any of the funds for internal expenses.

A potential biological control agent (a specialist parasitoid fly) was discovered in Central America by Dr. Ronald Cave. We all hoped that the Honduran tachinid fly, *Lixadmontia franki*, would be the answer to the weevil problem. Dr. Cave began growing the flies at the Biological Control Research and Containment Facility of Indian River Research and Education Center, IFAS, University of Florida, at Ft. Pierce.

The first release of the fly, *Lixadmontia franki*, was made in Hillsborough County on June 29, 2007 consisting of 56 adult flies, 27 females and 29 males. Many documented releases of the fly

Continues next page



at other locations in Florida were made in 2007-2008. However, the flies disappeared from the sites where they were released.

The State of Florida cut the funds supporting the research personnel and on October 2019, the University of Florida Entomology project on *Metamasius callizona* was suspended. This is because (1) of lack of evidence for establishment of *Lixadmontia franki* Wood and Cave (Diptera: Tachinidae) as a biological control, agent after releases in Florida in 2007-2008; (2) the project no longer has any employees; (3) attempts by J.H. Frank and Teresa Cooper from 2015 to persuade qualified botanists to undertake DNA analysis of Florida versus Belizean *Tillandsia utriculata* have met with their failure and indeed confiscation of the leaf samples that were supplied to two FIU botanists. There was hope that DNA studies would prove that *T. utriculata* plants in Belize and Florida belong to a single species as has been claimed by botanists for years on morphological evidence.

Dr. Teresa Yawn née Cooper, during her employment at Ft. Pierce, demonstrated resistance by Belizean *T. utriculata* (contrasted with Florida *T. utriculata*) to attack by *M. callizona* larvae; she has spoken about this work at scientific meetings.

My last conversation with Dr. Frank was at the FCBS meeting in November at Sarasota, Florida. Dr. Frank was concerned that since his retirement and since Teresa Cooper's work had stopped, due to the State of Florida cutting their funds, that the work had come to a standstill. After the Sarasota meeting, Dr. Frank sent me an email regarding his concern for the bromeliads and the lack of discovering a successful predator for *Metamasius callizona*. Here are some of his comments:

- 1) The Honduran tachinid fly, *Lixadmontia franki*, did not establish in Florida despite all our efforts, probably because its preferred climate is cloud forest—Florida gets too hot for it.
- 2) We did not find an alternative parasitoid or predator. You know we tried!
- 3) What we did find in Belize was the suspicion of host-plant resistance.
- 4) Teresa Cooper demonstrated at Ft. Pierce that the resistance is real. Although so far she has not published this work, she gave a talk about it at the 2014 Florida Entomological Society's Annual Meeting.
- 5) That gives a good chance of the "Florida panther approach" in which we get seed of Belize an *Tillandsia utriculata* and (a) distribute it in the wild, or (b) cross pollen with Florida *T. utriculata*, get seed and distribute the hybrid.
- 6) We need genetic confirmation of the conspecificity of Florida and Belize strains, not just the opinion of bromeliad morphologists. So, I then spent time finding botanists who can do DNA analysis of bromeliads. However, two groups of them let me down and eventually confiscated our bromeliad leaf samples.

The research on *Metamasius callizona* has come to a crawl. The FCBS has funds set aside in the Al Muzzell Memorial Weevil Fund for this purpose. The FCBS ByLaws Standing Rule #11 states any scientist authorized by the Al Muzzell Memorial Weevil Fund is permitted to apply for grants under Florida Council of Bromeliad Societies, Inc.'s Non-Profit 501(c)3 status. The Al Muzzell Memorial Weevil Fund Committee is responsible for coordinating grant applications and processing necessary paperwork.

Our hope is to complete Dr. Frank's work and find botanists who can perform DNA analysis on the Belize *Tillandsia utriculata* and the Florida *Tillandsia utriculata* strains. We hope this will shed some light as to why the Honduran tachinid fly, *Lixadmontia franki*, did not establish in Florida despite all the concerted effort by the University of Florida team.

Bruce Holst of Selby Gardens is also working toward securing a qualified botanists to run DNA analysis on *Tillandsia utriculata*.

FLORIDA'S NATIVE BROMELIADS

Barbra C. Larson, J. Howard Frank, Martin B. Main, and Ginger M. Allen

Bromeliads are members of the pineapple family Bromeliaceae. They are perennial herbs that lack woody stems and typically grow on other plants or substrates. Bromeliads are not mosses as some of their common names suggest. They are flowering plants, although their blossoms can be very small.

All of Florida's 16 native bromeliad species and two natural hybrids (hybrids are produced when cross-pollination occurs between species, producing a new offspring) are epiphytic, which means they grow on other plants. Although epiphytes may attach root structures to their host plant, they do not parasitize the host plant; they simply use it for support.

Often called "air plants," bromeliads absorb surface minerals and water from specialized disc-shaped leaf structures called trichomes. Some Florida bromeliads are "tank" bromeliads that hold water between the leaf axils. Tanks are formed by many separate leaf axils (the space between the leaf and stem) or the central leaves together may form a large tank. Trapped plant materials (leaves, seeds, and twigs) are decomposed by bacteria and fungi and absorbed by the trichomes lining the bromeliad tanks. Sometimes found among these plant materials are dead and drowning non-aquatic insects, which also provide nutrients for the bromeliads. *Catopsis berteroniana*, a species of tank bromeliad found in south Florida, has evolved the ability to trap insects and use the nutrients to such a degree that it is essentially a carnivorous plant. Bromeliad tanks also provide habitat for mosquito larvae and various other invertebrate and small vertebrate animals. Consequently, bromeliads play important ecological roles, both as habitat and in nutrient recycling.

Ten of Florida's 16 native bromeliad species are listed as threatened or endangered. A threatened species is at risk of becoming endangered, and an endangered species is at risk of becoming extinct. Loss of habitat, illegal collecting of specimens from natural areas, and the non-native Mexican bromeliad weevil (*Metamasius callizona*) are the greatest threats to Florida's bromeliads. There is also a bromeliad weevil that is native to Florida (*Metamasius mosieri*); but whereas the native weevil does not typically kill the plant, the Mexican bromeliad weevil's larvae typically do. The rapid spread of the Mexican bromeliad weevil throughout south Florida is a potentially serious threat to these rare plants. For more information on the Mexican bromeliad weevil problem, please see the additional information section of this document and visit the "Save Florida's Native Bromeliads" website <https://entnemdept.ufl.edu/frank/savebromeliads/>.



Figure 1 Credit: J. H. Frank

This document describes the distinct features of each of Florida's 16 native bromeliads and notes specific conservation concerns. There are also two natural hybrids present in Florida, *Tillandsia bartramii* x *fasciculata* and *Tillandsia balbisiana* x *fasciculata*, which are not described in this document. We have used the symbol "~" to represent the word approximately when discussing length of leaves, bracts, flowers, and seed capsules

Scientific name: *Catopsis berteroniana*

Also called: Powdery catopsis, West Indies catopsis, Yellow catopsis, Mealy wild pine

Status in Florida: endangered; rare **Threats in Florida:** illegal collecting, Mexican bromeliad weevil, habitat loss

Range: Florida, Mexico, West Indies, Central and South America

Distribution in Florida: Collier, Dade, and mainland Monroe counties

Habitat: rockland hammock; slough; tidal swamp; prefers strong light, on high branches of host tree

Description: tank epiphyte; when flowering 16 in.; leaves yellow/green, to 18 in., white, chalky, powder covering, especially at the base; flowers 15–50, 3/8–1/2 in., white, on a stout scape, usually with 28 lateral branches; floral bracts 1/4–1/3 in., sepals 1/2 in. yellow-green; seed capsule ~ 1/2 in. long; seeds often germinate on the capsule

Time of flowering: all year, especially fall–winter **Fun facts:** one of three known carnivorous bromeliads; slippery powder on leaf bases may aid in trapping insects



Figure 2 Credit: J. H. Frank

Scientific name: *Catopsis floribunda*

Also called: Many-flowered catopsis, Many-flowered airplant, Florida catopsis

Status in Florida: endangered, rare

Threats in Florida: illegal collecting, habitat loss, Mexican bromeliad weevil

Range: Florida, Mexico, West Indies, Central and South America

Distribution in Florida: Broward, Collier, Dade, and Monroe counties

Habitat: humid, shady habitats; rockland hammocks; cypress swamps

Description: tank epiphyte; grows to 28 in. tall; **leaves** bright green, 8 in., with wide bases and narrowing at tip; **flower stalk** 10 in. or longer, with 5–15 lateral branches; **flowers** 15–50 yellow or white; **seed capsules** ½ in. long; vegetative in every month

Time of flowering: fall

Fun facts: soft leaves form a basal rosette; prefers shady spots on low tree branches.



Figure 3 Credit: B. Holst

Scientific name: *Catopsis nutans*

Also called: Nodding airplant, Nodding catopsis

Status in Florida: endangered, very rare

Threats in Florida: restricted range, illegal collecting, Mexican bromeliad weevil

Range: Florida, Mexico, West Indies, Central and South America

Distribution in Florida: Collier County

Habitat: shady, humid hammocks, deep cypress swamp, sloughs

Description: tank epiphyte; height 12 in; **leaves** small rosettes overlapping at bases, flexible, spreading, bright green, tapered to tip, 3–6 in. long, ¾ in. wide at base, chalky; **flower stalk** usually simple; **flowers** 3–10 orange/yellow, ¾ in.; **capsules** ½–¾ in. long, oval

Time of flowering: fall–spring (August–October)

Fun facts: flowers open at night; may only exist in the Fakahatchee Strand



Figure 4 Credit: J. H. Frank

Scientific name: *Guzmania monostachia*

Also called: Fuchs bromeliad, Strap-leaved Guzmania, Striped torch

Status in Florida: endangered, restricted, seldom found but locally abundant

Threats in Florida: illegal collecting, Mexican bromeliad weevil

Range: Florida, West Indies, Mexico, Central America to northern Peru and Brazil

Distribution in Florida: Collier, Dade, mainland Monroe counties

Habitat: rockland hammock, slough, cypress swamp, most abundant on Pop ash (*Fraxinus caroliniana*) and Pond apple (*Annona glabra*) sloughs with peat soils

Description: Tank epiphyte; may be terrestrial; bright green, flexible, **leaves** taper at the tip, about 1 in. wide, usually 10–12 in., may have white stripes; single **floral spike** to 16 in.; many white **flowers** spirally arranged, 1 in.; salmon colored apical floral bracts; cylindrical **seed capsules**, 1½ in. **Time of flowering:** all year, mainly February–August and especially May–July **Fun facts:** 100 plants may appear on a single host tree; may produce many vegetative offshoots; genus name honors the 18th century Spanish naturalist Guzman



Figure 5 Credit: Barbra Larson

Scientific name: *Tillandsia variabilis* syn *T. valenzuelana*

Also called: Soft-leaved wild pine

Status in Florida: threatened, occasional

Threats in Florida: illegal collecting, Mexican bromeliad weevil, habitat loss

Range: Florida, West Indies, Mexico, Central and South America

Distribution in Florida: Broward, Collier, Hendry, Highlands, Martin, Dade, Monroe, Okeechobee counties

Habitat: shaded hammocks, cypress swamps

Description: tank epiphyte; plants usually single; 12–20 in tall; 15–20 soft **leaves** with fine scales, green/gray or silver (may have rose coloring), tapering; simple **flower** spike with reddish floral bracts 1/8 in. long, violet petals, and white sepals

Time of flowering: spring–fall **Fun facts:** color of the flower spike depends greatly on the light level; summer colors are darker than fall



Figure 6.

Credit: Barbra Larson

Scientific name: *Tillandsia utriculata*

Also called: Giant/Swollen wild pine; Spreading air plant

Status in Florida: endangered, frequent before Mexican bromeliad weevil

Threats in Florida: illegal collecting, Mexican bromeliad weevil, habitat loss

Range: Florida, West Indies, Mexico, Central/South America

Distribution in Florida: Volusia, Putnam, Flagler, Sumter, Lake, and Citrus counties, south to end of peninsula

Habitat: dry and mesic hammocks, cypress swamps, pinelands (often in bright exposed areas)

Description: tank epiphyte (may grow terrestrially); single plants, 6–12 ft.; 20–75 large, light-green to gray leaves (up to 31 in.) with wide base and scales; erect, zigzag branching **flower spike** (40–80 in.) 5–40 branches; floral bracts green or purple; 10–200 flowers, 1 in. petals white at base, violet at end; **seed capsules** up to 2 in.; monocarpic (single flower spike, releases seed and dies); low rate of vegetative reproduction **Time of flowering:** spring to fall (especially summer) **Fun facts:** after flower spike appears, seeds are released the following year in late spring; plant may live 20 years



Figure 7. Credit:
Barbra Larson

Scientific name: *Tillandsia balbisiana*

Also called: Inflated wild pine, Reflexed wild pine, Cuttlefish, Balbis air-plant

Status in Florida: threatened, occasionally found

Threats in Florida: Mexican bromeliad weevil, habitat loss

Range: Florida, Mexico, West Indies, Central and South America

Distribution in Florida: Orange, Osceola, Polk, Hillsborough, Manatee, Sarasota, DeSoto, Highlands, Okeechobee, Indian River, St. Lucie, Martin, Glades, Charlotte, Lee, Hendry, Palm Beach, Broward, Collier, Monroe, and Dade counties

Habitat: scrub, pinelands, cypress swamp, hammocks, mangroves, shell ridges/mounds

Description: Tank epiphyte; 28 in. tall, single or in clusters; 15–30 leaves, leathery, gray color due to scales, may be reddish; leaves slightly bulbous at base, tapering, curved or twisted at ends; **flower spike** usually 2–10 lateral branches, scape 3–12 in.; floral bracts bright red with violet petals, 5 flowers; **seed capsules** 1¾ in.

Time of flowering: fall-summer, especially early spring

Fun facts: on older plants, twisted and curved leaves interlock, forming a ball



Figure 8 Credit
J. H. Frank

Scientific name: *Tillandsia bartramii*, syn *T. juncea*, *T. myriophylla*

Status in Florida: frequently found

Range: Florida, Georgia, Caribbean, Mexico

Distribution in Florida: Alachua, Baker, Bradford, Citrus, Columbia, Dixie, Duval, Flagler, Franklin, Gilchrist, Gulf, Hernando, Highlands, Hillsborough, Indian River, Jefferson, Lafayette, Lake, Leon, Levy, Liberty, Manatee, Marion, Nassau, Orange, Osceola, Pasco, Polk, Putnam, Seminole, St. Johns, Sumter, Suwannee, Volusia, and Wakulla counties

Habitat: hammocks and pinelands

Description: epiphytic; 4–12 in. tall, 18–16 in. when flowering; plants clustered; 15 thin leathery, grayish leaves; **flower spike** simple or 1–5 side branches; pink to red floral bracts; violet petals; **seed capsules** ~1 inch long **Time of flowering:** spring–summer (especially spring)

Fun facts: leaves resemble those of a wetland rush; Bartram was an early Florida naturalist



Figure 9 Credit: Barbra Larson

Scientific name: *Tillandsia fasciculata* syn *T. hystrix*

Also called: Quill-leaf airplant, Common wild pine, Clustered wild pine, Dog-drink-water.

Status in Florida: endangered; frequent before weevil

Threats in Florida: illegal collecting, Mexican bromeliad weevil, habitat loss

Range: Florida, West Indies, Mexico, Central and South America

Distribution in Florida: Brevard, Broward, Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Highlands, Hillsborough, Lee, Manatee, Martin, Dade, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pinellas, Polk, Sarasota, Seminole, and Volusia counties

Habitat: hammocks, cypress swamps, pinelands

Description: tank epiphyte, often in clusters; 20–50 long, stiff and leathery gray/green leaves, (12–28 in.), wider at brown base, tapering; flowering spike 12–24 in., 3–15 branches; floral bracts usually red but vary from yellow, green, to rose; 10–50 violet flowers, violet, rarely white, 1¼ in.; seed capsules ~ 1 in.; seeds windborne

Time of flowering: all year, especially spring to early summer

Fun facts: leaves longer in shade, plant smaller and more colorful in open sun



Figure 10 Credit: J. H. Frank

Scientific name: *Tillandsia flexuosa* syn *T. aloifolia*

Also called: Banded/Striped airplant; Flexuous wild pine.

Status in Florida: threatened, infrequent

Threats in Florida: illegal collecting, Mexican bromeliad weevil, habitat loss

Range: Florida, West Indies, Panama, Venezuela, Colombia

Distribution in Florida: Broward, Charlotte, Collier, Hendry, Highlands, Lee, Martin, Dade, Monroe, Palm Beach counties

Habitat: exposed areas, often coastal; xeric hammock, pinelands, scrub, shell mound, coastal berm, maritime hammock, tidal swamp, cypress swamp

Description: tank epiphyte; 8–31 in., bulbous base, gray leaves, twisted tips, white bands; zigzag flower stalk simple or few branches; spreading floral bracts; rose or purple flowers, 1½ in.; seed capsules 2 in. long.

Time of flowering: all year, except November and December, mostly spring to summer

Fun facts: flowers once, then reproduces vegetatively



Figure 11 Credit: J. H. Frank

Scientific name: *Tillandsia paucifolia* syn *T. circinnata*, *T. bulbosa*

Status in Florida: occasional

Threats in Florida: Mexican bromeliad weevil

Range: Florida, Mexico, West Indies, Central and South America

Distribution in Florida: Brevard, Broward, Charlotte, Collier, Hendry, Indian River, Lee, Manatee, Martin, Dade, Monroe, Okeechobee, Osceola, Palm Beach, Sarasota, and St. Lucie counties

Habitat: coastal strands and hammocks; exposed habitats, cypress swamps

Description: Tank epiphyte; 4–14 in. tall, single or in clusters; pseudobulbs; 5–10 long, twisted tapering gray leaves; simple flower spike 2–3 in., may have 2–4 branches, 2–15 lavender flowers ~1 in; leathery, pale pink floral bracts; brown, pointed seed capsules 1½ in. long

Time of flowering: spring–summer

Fun facts: only flowers once, then produces young sprout "pups" that feed off the mother plant until they drop off



Figure 9. Credit: J. H. Frank

Scientific name: *Tillandsia pruinosa* syn *T. breviscapa*

Also called: Hoary airplant, Tropical airplant

Status in Florida: endangered, rare

Threats in Florida: illegal collecting, Mexican bromeliad weevil, habitat loss

Range: Florida, West Indies, Central and South America

Distribution in Florida: Collier county

Habitat: shady, humid hammocks, cypress swamps

Description: Tank epiphyte, pseudobulb, rarely clustered; 10 in. tall, 5–10 leaves; scales create white fuzzy appearance; **flower spike** simple; floral bracts pink, with 5 to many violet **flowers**, ~1 in.; **seed capsule** pointed and 3-sided, 1¾ in. long.

Time of flowering: All year, especially winter to spring

Fun facts: pointed scales give this plant its fuzziness; short flower stalks are sometimes hidden



Figure 13 Credit: Barbra Larson

Scientific name: *Tillandsia recurvata* syn. *Diaphoranthema recurvata*

Status in Florida: common

Threats in Florida: none

Range: Arizona, Texas, Louisiana, Georgia, Florida, Mexico, Central America, West Indies, Argentina, Chile

Distribution in Florida: all counties

Habitat: Hammocks (prefer broad-leaved trees), pinelands, scrub; exposed areas

Description: Epiphytic; 5–7 in. tall, 6–7 in. wide; rooted crown, cluster of curving stems, compact leaves resulting in ball-like growth; **leaves** stiff, narrow, gray 2–5 blue to violet **flowers** on long central stem; **seed capsule** ~1 in. long **Time of flowering:** spring

Fun fact: several plants often grow together in masses



Figure 14 Credit: J. H. Frank

Scientific name: *Tillandsia setacea* syn. *T. tenuifolia*

Also called: Needleleaf airplant

Status in Florida: common

Threats in Florida: none

Range: Florida, West Indies, Central and South America

Distribution in Florida: Brevard, Broward, Charlotte, Collier, DeSoto, Glades, Hardee, Hendry, Hernando, Highlands, Hillsborough, Indian River, Lake, Lee, Manatee, Martin, Dade, Monroe, Okeechobee, Orange, Osceola, Palm Beach, Pasco, Pinellas, Polk, Putnam, Sarasota, Seminole, St. Lucie, Sumter, and Volusia counties

Habitat: hammocks, swamps **Description:** epiphytic, grows to 12 in. long, plants densely clustered, grow in small tufts; **leaves** swollen at base, curving tips, green to red; **flower stalk** 3–6 in.; 3–15 violet flowers, 1 in. long; **seed capsules** ~1 in. **Time of flowering:** spring **Fun fact:** similar to *Tillandsia bartramii* except for red tinting



Figure 15 Credit: J. H. Frank

Scientific name: *Tillandsia simulata*

Status in Florida: frequent; precinctive (found nowhere else)

Threats in Florida: possibly Mexican bromeliad weevil

Range: Florida

Distribution in Florida: Citrus, DeSoto, Flagler, Hernando, Highlands, Hillsborough, Indian River, Lake, Levy, Manatee, Orange, Osceola, Pasco, Pinellas, Polk, Putnam, Seminole, Sumter, and Volusia counties

Habitat: moist hammocks, swamps, usually in strong light

Description: epiphytic, single or in clusters; 8–16 in. tall; gray pointed leathery **leaves**; simple **flower spike** with reddish floral bracts; 5–30 violet flowers, 1¾ in. long; **seed capsules** ~1 in. **Time of flowering:** spring–summer

Fun facts: the only bromeliad species known only from Florida



Figure 16 Credit: J. H. Frank

Scientific name: *Tillandsia usneoides* syn. *Dendropogon usneoides*

Status in Florida: common

Threats in Florida: none

Range: Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Louisiana, Mississippi, Arkansas, Texas to central Argentina, and Chile

Distribution in Florida: all counties

Habitat: hammocks (usually on oaks), pinelands and scrub; prefers moist, brightly exposed areas

Description: epiphytic; rootless, long branching, up to 18 in. long; **leaves** 1–2 in. long, 1/16 in. wide, covered with grayscales; leaves greener when plant healthy; **flowers**, usually one, greenish, fragrant, lasting 4 days; **seed capsules** 1/2–3/4 in. long; seeds 2–23 per capsule, reproduces by seed and vegetatively

Time of flowering: spring (mainly April)

Fun facts: "ginned" in Florida in early 1900s; bales exported for car seats and mattresses; broadest geographical range of any bromeliad; gray leaves may indicate moisture stress or other environmental factors; can withstand extreme temperature fluctuation and low rainfall

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Two of the Wolfe's grandchildren,

Elizabeth and Luke
helping with *Billbergia amoena*



2024 WORLD BROMELIAD CONFERENCE

May 22-25, 2024

WEST PALM BEACH MARRIOTT. WEST PALM BEACH, FLORIDA



WBC 2024 will include 8 speaker presentations, a judged plant show, a special plant sale, a rare plant auction, bus tours, a banquet with keynote speaker, and more.

The keynote speaker for the Banquet on Saturday night, May 25, 2024, **Andrew Devonshire from New Zealand** with his presentation, Hybridizing: The Kiwi Way.

The hotel venue will be the West Palm Beach Marriott. There is a special \$179 hotel rate for registrants (regular rates in May for the Marriott are \$300 and up) with online reservations now available for booking from the Members area of the [BSI website](https://www.bromeliad.org) at [BSI.org](https://www.bromeliad.org).

WBC 2024 Registration Fees are \$295 if paid by December 31, 2023; \$335 from January 1, 2023 through April 30, 2024; or \$395 from May 1, 2024. Registration fees may be paid in the [Members area](#) of the [BSI website](https://www.bromeliad.org). To register for WBC 2024, you must be a [BSI member](#).

The conference co-chairs are Alex Bello and Tom Ramiccio who may be reached at WBC2024@yahoo.com

Bromeliad Society International

If you are not already a member of the BSI, there is now a new rate of only **\$15 for a First-Time Member Electronic Only membership**

(or \$35 if you prefer to receive the printed **BSI Journal** which is mailed locally from Lake Mary, FL).

[Click here for more info. WBC 2024](#)



CALENDAR OF EVENTS

2023	Event
September 16 & 17	Mounts Botanical Garden Summer Plantapalooza
November 4 & 5	Mounts Botanical Garden Fall Plantapalooza
October 14-15	USF Botanical Gardens' Fall Sale 12210 USF Pine Dr. Tampa, FL 33612 Sat. 9 - 3, members 10-3 Non-members Sunday 10 - 2
October 14-15	Southwest Bromeliad Guild & International Cryptanthus Society Shows & Sales Holiday Inn & Suites Houston, TX bromeliadsocietyhouston.org
2024	EVENT
May 22-25	World Bromeliad Conference 2024 The Bromeliad Society International has announced WBC 2024 which will be in West Palm Beach, Florida

FCBS AUCTION AT THE EXTRAVAGANZA

Thanks to all the members of the FCBS for contributing the beautiful bromeliads for the auction. Each society was responsible for providing five plants. The proceeds were \$6809 with a \$2250 contribution to the Palm Beaches Society to assist with Extravaganza expenses and miscellaneous expenses \$179.10 leaving a net of \$4,379.90 to the Council. Because of the auction, the council is able to keep the annual fee to \$100 per society.

Special thanks to FCBS Chairman, Sandy Burnett, for organizing the auction. Great Job!



**Sandy Burnett
Chairman**

Photo: Carol Wolfe



**Herb Hill is helping
with the auction.**

Photo: Carol Wolfe