



March 2010
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What	Who
Sales Table	Antonio Arbelaez

MARCH , 2010, 7:30 PM

SPEAKER: – Alan Herndon : "Just When You Thought Winter Will Never Come."
 This topic is not necessarily too late!!
RAFFLE TABLE: Mike Michalski
 Food will be provided by the usual suspects

FEATURED SPEAKER

Alan Herndon is a trained botanist graduating from Florida International University. Alan is a true native having been born here in Miami. Alan has written over 50 articles for this publication over the past several years. He is our current Treasurer, Show Chairman, and all around Man Friday. He and his wife Rhonda run Tradewinds Tropicals where bromeliads of vibrant colors glisten under the screens beneath the Florida sun. They have hosted excursions at their nursery and continue to be invaluable resources to this organization.



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PRESIDENT'S MESSAGE

by Robert Meyer

It is all about timing. And timing is moving at fast paced each year – or so it seems.

The drudgery of daily activity seems to speed the days, weeks and months – events of each year become more pronounced and sudden.

One coming deadline is – believe it or not – just a few months away: The Annual Show.

And, the participation of the people of this organization is imperative as the size of the show remains the largest on the plant earth – amazingly showcasing more entries than even the prestigious bi-annual World Conference.

So, please open your calendars and donate the generous giving of your time.

And, it is that time to fill out and send your annual membership application to the society. The form is on the last page.

Harry Luther Leaving Florida

By Thomas Becnel

Originally published: Sunday, February 7, 2010 at 1:00 a.m. for Heraldtribune.com

Harry Luther, a world leader in bromeliad research, thought he would finish his career at Selby Botanical Gardens. Instead, frustrated with garden management, he is leaving for a new botanical project in Singapore.



"I'll just start over," says Luther, 58. "It'll take awhile to get back where I am, but it's doable."

The future of research at Selby does not look so bright, according to scientists across the country. Last year, the debt-strapped gardens laid off the last two researchers in its orchid identification program. Now the nonprofit loses a bromeliad expert described as "irreplaceable."

Botanists still talk about research at Selby, but they use the past tense. "It was a world-class organization, top of the list," said Robert Magill, director of research at the Missouri Botanical Garden in St. Louis. "They had a core group of people that was just outstanding."

John Kress, curator of botany at the Smithsonian Institution in Washington, D.C., worked at the Sarasota gardens in the 1980s. Now all he hears is bad news. "Are there any scientists left at Selby?" Kress asked. "I'm serious."

At the University of Florida, botany professor Norris Williams also was surprised that Luther would leave Selby. "That's a pretty big loss; he was sort of Mr. Bromeliad," Norris said. "It's hard to know what's going on down there. For the last few years, it's been going downhill, it seems to me."

Thomas Buchter, Selby chief executive officer, says research remains a vital part of the botanical gardens. Hard economic times have forced management to make tough decisions. "It comes down to cash," Buchter says. "It's having the financial stability to do these things."

Many local botanists are torn between loyalty to Selby and unhappiness with garden administration, especially business people on the board of trustees. The fear: that Selby will be reduced to a "display garden," a tourist attraction with no scientific ambition. These critics include Cal Dodson, a founding director of the Marie Selby Botanical Gardens in 1975. "I don't want to get into it," Dodson said, "but it's not being run as a botanical garden. It's a research institution, and the board just doesn't understand that."

Thousands of visitors know Selby for its spectacular location on Sarasota Bay. The grounds are a popular spot for parties and weddings.

Behind the scenes, the Selby research department enjoys a special niche in American botany.

Scientists and amateur collectors from across the country send rare specimens to Sarasota, where they are identified and classified. This kind of expertise has helped Selby build a research library and one of the world's most comprehensive collections of orchids and bromeliads.

Losing this critical service is what worries scientists at other institutions. Selby never had a large research staff, but there used to be more interns and associates. There were more staff articles in Selbyana, the garden scientific journal.

Bruce Holst has been acting research director for five years. He describes the department now -- four botanical researchers and two assistants -- as "lean and mean."

Buchter, the Selby CEO, has been on the job for less than a year. He has the thankless task of cutting budgets while trying to unify the research and public sides of the gardens. He is aware of frustration in the scientific community. "I encourage them to be worried about the future of research at Selby," Buchter said. "I want everyone to be concerned about the future of Selby."

"We can't be a botanical garden without research. We just have to be able to fund ourselves, and that hasn't happened."

The nonprofit Selby has an annual budget of \$3.4 million. There is \$2 million in debt. In recent years, Selby has focused on raising money for a multimillion-dollar children's garden -- one of the reasons Buchter was hired. Other botanical parks have built membership and endowments with this kind of project.

Thomas Luzier, chairman of the Selby board of trustees, defends the long-term strategy of a children's garden, along with short-term cuts for all departments. Those savings are helping the gardens balance its budget this year. And Selby is already planning to bring back an orchid researcher. "We didn't get out of the research business," Luzier said. "We just had to make some hard economic decisions."

Somewhere in the middle of this dispute stands Sue Scully. Her husband is a former board member. She leads a Selby volunteer group. Scully says the kind of things scientists wish they would hear from management. She starts with the idea of world-class research. "That's how Selby started; that was our claim to fame," Scully said. "It's very, very painful for us who see it that way. It's so alarming and sad, but in this other breath you have to be hopeful about the future. "I keep hoping we can do something with the orchids. And now I keep hoping we can do something with the bromeliads."

In a science dominated by Ph.D.s, "Mr. Bromeliad" is a college dropout. Harry Luther, a St. Petersburg native, studied botany at the University of South Florida but never graduated. He worked for a commercial nursery before joining Selby, where he developed an encyclopedic knowledge of air plants.

In 32 years at the gardens, he identified and named more than 180 species of bromeliads. "He must have a photographic memory," said Meg Lowman, a New College of Florida professor and former Selby executive director. "He remembered and knew all those bromeliads like the back of his hand."

Luther immersed himself in the 14-acre Sarasota gardens. Each day he walked the bricks that line the

south end of Palm Avenue. For years he has lived in a small house on the grounds of the Selby mansion. "The maid's quarters," he said with a trace of a smile. "I don't need much."

Luther, a night owl, often worked late into the evening. He was always shy. In recent years, he suffered a heart attack and had problems with his vision, which kept him from driving. Stig Dalstrom, a former orchid researcher at Selby, described Luther as a "gregarious recluse." "It takes years to get to know him," Dalstrom said, laughing. "You need to flush him out."

Luther's last day of work was Friday. This week, he will fly to Singapore and his new job at Gardens By the Bay, a huge new botanical park. He has packed a half-ton of books and papers to take with him.

Luther choked up when asked if he would miss Sarasota, but he swallows most of his anger at Selby management. "They say they're going to actively seek my replacement," he said. "I find that ... interesting." Part of his job has been curator of living collections at Selby. He fears that work will be neglected. "That'd be disastrous," Luther said. "You can't just hire people off the street. Most of the collections were put together by botanists. They weren't put together by people who said: 'That's pretty. Let's put that in the collection.'"

Selby has survived controversy in the past. In 2004, a garden employee pleaded guilty to accepting a

rare Peruvian orchid that had been smuggled into the country. That scandal led to canceled donations, board resignations and a succession of executive and interim directors.

This time, the question is the future of Selby research. Botanists across the country wonder how Selby will rebuild its reputation for work with orchids and bromeliads. The Smithsonian's Kress says he hears a "death knell" for research in Sarasota. The University of Florida's Williams worries that it will be difficult for Selby to recruit top scientists.



Final Days at Selby
Photo by Thoms Bender, Heraldtribune.com

Magill, of the Missouri Botanical Garden, does not sound hopeful. "Usually, when programs start going down, it's hard to stop," he said. "It's extremely difficult to bring it back." Holly Shimizu, director of the U.S. Botanic Garden in Washington, D.C., does not share this sentiment.

She calls herself a big fan of Selby Botanical Gardens. She refuses to be discouraged by news of layoffs and staff changes. "I think they can bounce back," Shimizu said. "It doesn't alarm me when people leave, because it offers opportunities for change. Everybody loves to think they're irreplaceable, but none of us are."

ANYONE KNOW WHERE?

We know where most of the materials needed for the show can be found, but a few items still elude our detection. Please let me know if you ended up with any of the following after last year's show:

Bromeliad Culture Manual, Herb Plever and Joyce Brehm, eds. Handouts on basic bromeliad culture by Peniel Romanelli. There are 4 different sheets, each covering a single topic and printed on a different color paper.

If you know of any other 'missing' items that you need to carry out your show duties, now is the time to speak up.

In Case You Missed it

by Robert Meyer

Bruce McAlpin introduced us to his magic 10 rules and host of more horticultural secrets during his February 2, 2010 speech. The retired professor of Miami-Dade College taught the members of the society many tricks he learned years ago when working as an apprentice with Bob Wilson – an informal educator who provided McAlpin with many of the tricks shown at the lecture.



The brief outline of the 10 rules are: (1) keep the water in the tanks of the plants; (2) use well drained soil mix; (3) uniform water moisture program; (4) use an appropriate pot for the plant; (5) put the pot in the appropriate location; (6) remove pups at the proper time; (7) fertilize at the proper time(s); (8) control insects and diseases; (9) secrets of seed germination; and (10) protect plant from heat and cold.

Outside of the obvious, McAlpin's tricks included the following: (1) when watering to comply with rule 1 – put the plant in the kitchen sink and spritz with the dish hose; (2) when complying with the proper soil of rule 2 – mix perlite 3:1 for terrestrial and soil 2:1 for air plants; (3) mounting techniques for the mixture/watering of rule 3 include fishing line, bamboo, sphagnum moss and basket; (4) the best pots of rule 4 are the pots which will not tip over – growing trays and cement blocks are nice; (5) sun and shade can be equally damaging; (6) remove pups when they are 33% of the parent's size, but the pup grows faster if left appended to parent; (7) do fertilize during the spring and fall – and suncote, osmocote, Peters and Miracle Grow all work (and use diluted version of Miracle and Peter's for bromeliads); (8) Malathion can handle pests in amazing ways; (9) sphagnum moss for seed trays – and when sifted with hardware cloth, the moss to fine grade; and (10) directions of sun affect heat and cold issues.

He also showed us how things are done. Actual display of tricks included: display of removing leaves; handling of the repotting; and mounting pups to the bamboo or other unique items. These displays are tricks of the trade learned by McAlpin since his youth at Wilson's garden where he worked decades ago. Through his apprenticeship with Wilson, he sought to deliver that "hands on" education to others – the education on the spot given by Wilson, and something which the professor for years understood books unfortunately neither address nor discuss.

Onward to the Annual Show

by Alan Herndon

Once again, we have been able to recruit a remarkable group of people to take over the duties of leading committees that make our annual show happen. We count on the rest of you to help the committee chairs carry out their tasks. Please review the following list and sign up to help where you can.

Several tasks need to be completed before the show actually starts. If you would like to help sponsor our major awards by making a contribution toward the purchase of crystal for

the head table, please contact Joy Parrish. If you would like to place an ad in the Show Booklet distributed to visitors, please contact Peter Kouchalakos.

Workers are needed for a variety of tasks throughout the four days of the show. Thursday (Apr 15) is devoted to setup (arranging the Garden Room for the show: see Alan Herndon to volunteer) in the morning and plant entries in the afternoon. Plant entries encompass several different steps starting with Classification, proceeding to Data Entry and culminating with Placement. These activities take place from noon through about 9 at night. You don't need to be available during the entire period. If you can help for 2-3 hours, please let Alan Herndon know. (Of course, we will not discourage you from staying the entire period, if that is your wish.) Catering also goes into full swing on Thursday. Sandy Roth can use help setting up meals for the volunteers on Thursday as well as bringing in supplies for the remainder of the show. If you are interested in helping the art portion of our show, contact Sharon Biddix. She is setting up, entering and placing art work from both local middle school students and adult artists throughout the entire day. She can use help, especially, with attaching the artwork to the display systems during the afternoon and evening.

Friday is devoted to judging. Judge's clerks can expect to work from 9 am through 3 pm (with lunch break). Joy von Wald will be organizing the clerks this year. Data entry volunteers are needed to record the decisions of the judges and produce various reports needed to keep the show moving. After the judging is finished, Barbara Sparling can use help setting up the head table with the major award winners. Catering, however, is the busiest committee on Friday. Sandy needs volunteers for setting up a breakfast for the judges (before 9 am), a lunch for the judges and judges clerks, and the Show party on Friday evening.

On Saturday and Sunday, the show is open to the general public. A steady supply of volunteers is needed to keep the Information Table staffed. Contact Sara Donayre if you can spend some time helping visitors get the most out of our show. Antonio Arbelaez needs some volunteers to help with the plant holding area so he can actually see the show. Several volunteers are

also needed to help at the Member Sales Table. Carl Bauer is the man to see if you are interested in volunteering for this job. (He is also the man to see if you would like to sell plants at the Member Sales Table.) Several more volunteers will be needed by Harlo von Wald for the Hospitality committee. There will be an Auction on Saturday (Sunday too, if enough plants are available), and a few volunteers will be needed as runners (getting bid sheets to successful bidders, and keeping the plants organized so they can be delivered to the bidders without fuss). See Peter Kouchalakos or John Lazarus if you can help with this. Catering is operating through the entire weekend, providing food for all volunteers. I would like to emphasize that we could always use more help with clean up at the end of the show on Sunday afternoon. No committees are involved, just stay around to help.

Aside from the satisfaction you will experience after volunteering some of your time for the BSSF show (priceless), there are also some tangible benefits for volunteers. First, if you are not a member of Fairchild Tropical Botanical Garden, you will be allowed into the Garden without paying the usual entrance fee during the period the show is in operation. (It is important to sign up as a volunteer early for this benefit. We need to submit a list of volunteers names in advance.) Second, you will be well fed during the show. Best of all, as a volunteer, you are invited to the show party on Friday.

What's in Bloom - February 2010

by Alan Herndon

A look at the list for this month shows a jump in the number of new species in bloom. Many of the newly blooming species belong to the subgenus *Ortgiesia* of *Aechmea* (relatives of *Aechmea caudata* and *Aechmea gamosepala*) or the subgenus *Macrochordion* of *Aechmea* (relatives of *Aechmea bromeliifolia*). The number of different *Neoregelia* and *Nidularium* types blooming, in contrast, is still very low compared to what will see later in the year.

Some corrections to the January 2010 list are necessary. *Aechmea brueggeri* started blooming during the January period, not this month. Continued blooming in *Tillandsia tricolor acanthocrater* was missed during January, but the same plant listed in December was again found in flower this month. It is also very likely that *Androlepis skinneri* was in bloom during the January period, but I don't have any direct evidence of this.



Aechmea brueggeri
Photo by Herb Plever
Courtesy of FCBS

Aechmea (***apocalyptica***, *araneosa*, *blanchetiana*, *bromeliifolia*, ***brueggeri***, ***calyculata***, *chantinii*, ***comata***, *contracta*, *dealbata*, *fendleri*, *fosteriana*, ***gamosepala***, ***guaratubensis***, *gurkeniana*, *kerteziae*, ***linharaesiorum***, Little Harv, ***maculata***, ***mexicana***, ***milsteiniana***, *nudicaulis* (a few different clones), *orlandiana*, ***penduliflora***, ***pimenti-velosi*** ***glabra***, ***pineliana***, ***racinae***, ***recurvata*** ***benrathii***, *roberto-anselmi*, ***seideliana***, Victoria, *weilbachii* *viridisepala*)

Androlepis skinneri

Billbergia (*amoena*, ***euphemiae***, *lymanii* *angustifolia*, *nutans*, ***reichardti***)

Canistropsis (***billbergioides***, ***seidelii*** (yellow bracts), ***seidelii*** (red bracts))

Canistrum (***fosterianum***, *lanigerum*)

Cryptanthus (*bahianus*, ***beuckeri***, ***burle-marxii***, *warren-loosei*)

Fernseea bocainensis

Fosterella micrantha

Guzmania (***lingulata***, *sanguinea* Tricolor)

Hohenbergia (*distans*)

Neoregelia (***Annick***, ***compacta***, ***punctatissima*** (red leaf), Sheba, Ultima)

Nidularium (***innocentii***)

Orthophytum (***duartei***, ***fosterianum***, *harleyi*, *lymaniana*, ***magalhaesii***)

Pitcairnia (***recurvata***)

Portea (*alatisepala*, *kermesina*, *petropolitana* var. *petropolitana*)

Quesnelia (***arvensis***, ***humilis***, ***lateralis***, ***strobilospica***)

Ronnbergia brasiliensis

Tillandsia (***capitata***, *ionantha*, *fasciculata* *clavisipica*, *festucoides*, ***neglecta***, ***polzii***, *tricolor acanthocrater*)

Vriesea (***barclayana*** ***minor***, ***botafogensis***,

carinata, *colnagoi*, *ensiformis*, *erythrodactylon*, *fluminensis*, *Mariae*, *sucrei*)

Calling Out to You

The following names are on a list.

Bob Benaim, Alex Bello, John Bethell, Doris Boisen, Dharma de Villiers, John Demott, Marina Esayag Tandler, Harry Ferguson, Paul Finlayson, Tom Goodrum, Bob Grayson, Lynne & Bob Hudson, Anne Kauffman, Anne Keppler, Paula Lamont, David Lane, Keith & Susan Lane, Sandra Lenhardt, Kevin Lennon & Susan Hamilton-Smith, Josefa Leon & Jorge Rodriguez, Lisardo Martinez, Craig Morell, Dennis Murasaki, Tom Nielsen, Silvia Padron, Jeri Parrish, Joy Parrish, Raymar Rodriguez, Gerry Roy, Edward Ryan, John Samuels, Virginia Schrenker, Bill Shade

If you want to know why – contact Rhonda Herndon.

The Types of Types

Plant taxonomy is the study of variation in plants with the goal of determining how to distinguish and recognize species (and other natural groups, such as genera, families, etc.) In simplified terms, a taxonomist recognizes a plant (or better, a population of plants) that differs in some important way from all other recognized species. This new species is described in a formal manner according to internationally recognized rules. One part of the description is the designation of a type specimen.

Types play a crucial role in plant taxonomy because they represent the best record of the plant being described. No matter how detailed a description is written by the taxonomist (or how detailed a drawing of the species is provided), it is never complete. In fact, in any description of a new species it is very hard to avoid

emphasizing how the new species differs from known existing species. This unavoidably leads to emphasis of some characters at the expense of others.

Types play a crucial role in plant taxonomy because they represent the best record of the plant being described.

In some cases, the characters used in a description are found to be inadequate or even misleading on further study. In other cases, as new species are discovered in a genus, the differential characteristics used in earlier descriptions become ambiguous and need reinterpretation. In a few cases, the original description does not match the type specimen because some characters are interpreted incorrectly. In all cases, whenever a conflict between the original description and the type specimen arises, the type specimen prevails.

A holotype is a single specimen that a new species is based on; it is identified by the original describer as part of the formal description. In practice, a holotype is a dried herbarium specimen (for large plants, a single specimen may cover several herbarium sheets). It may seem that a living plant would survive much better than a fragile dried specimen (especially if you consider a plant as imposing and durable as a tree), but this turned out to not be the case. Many plants during the 19th century were described based on living plants, but even in institutions such as Kew Gardens, the plants died or labels were lost over the years. The humble dried specimens, in contrast, survived.

Since the holotype is specified by the original describer, it can be accepted without reservation as representative of the plant being described. It is also irrevocably attached to the name proposed in the original description. For instance, *Aechmea orlandiana* was described by Lyman B. Smith in 1941. Smith designated a specimen collected by Mulford and Racine Foster (their number 165) deposited in the Gray Herbarium at Harvard University as the type.

(In this case, two specimens were actually cited in the original publication without designation of a holotype, but 165 was later so designated). This specimen can be viewed on the internet

An isotype is a specimen that was, by definition, a duplicate of the holotype

An isotype is a specimen that was, by definition, a duplicate of the holotype. It is easy to see how this would be accomplished with a tree or shrub by making specimens from different flowering/fruitlet branches collected from the same plant. Most bromeliads form clumps in favorable conditions, so collections of several rosettes within a clump will usually yield isotypes. If these conditions are met, an isotype will be just as useful as a holotype in defining a species. However, there are some unusual circumstances where an 'isotype' may not represent the intentions of the original describer. Within clumps of bromeliads, you may have 2 or more genetically different plants intermingling. These might represent 2 very similar, but distinct, species. For these reasons, isotypes require more careful scrutiny before being accepted as faithful representations of the original describer's intent.

Many bromeliad species have been described from cultivated plants. In many cases, type specimens are made from clones that continue in cultivation. Thus you can grow plants that are genetically identical to the type specimens. (For instance, if you grow *Neoregelia wilsoniana*, you are likely growing the clone introduced by Robert Wilson that provided the type specimen.)

However, all parts of a specimen have to be prepared at the same time to be recognized as valid. A composite specimen with a flowering plant dried in one month and a fruiting plant added the next month cannot be used as a type. Now, if you propagated a clone until you had dozens of blooming plants, then produced dried specimens from these

plants to support publication as a new species, you would have produced a single holotype and a potentially unlimited number of isotypes. If, on the other hand, you make dried specimens from the same clone on different dates than the holotype, they receive no recognition in the International Code of Botanical Nomenclature.

Given a choice, put your money into clones of types that most nearly reflect the intent of the original describer

Despite the lack of recognition, these specimens (and the living plants) are informally referred to as clonotypes. Of course, in addition to the potential problems with isotypes listed above, clonotypes carry the additional uncertainty that labels could become mixed at some point, so the plants being grown as clonotypes no longer have any connection to the holotype. Again, careful scrutiny is required before accepting these plants as true representatives of types. Still, clones of the type plants can be particularly important in the study of bromeliads. For instance, pups of an *Orthophytum* may have a radically different appearance from the mother plant. This clearly confuses the task of finding characters to separate different species. By growing clones of the types over several generations, you can better learn what characters consistently define a species.

Two other types of types have to be considered (there are more, but they are encountered very infrequently.) These are paratypes (specimens other than holotypes and isotypes designated by the original describer as conforming to the new species) and topotypes. Designation of paratypes means these specimens were studied during the description of the new species and had some influence on the description. However, as noted above, it is the holotype, not the description, that fixes the identity of the species. In cases where the holotype is destroyed or otherwise missing, a new type specimen (lectotype) must be selected. If any isotypes are available, the lectotype is selected from among those specimens. If there are no available isotypes and there are

existing paratypes, the lectotype is selected from the paratypes.

Of course, there is always a possibility that some of the paratypes were incorrectly assigned to the species (i.e., belong to a different species than the holotype), so the selection process must be very painstaking. Topotypes are even further removed from revealing the original intent of the describer. This is an informal name with no standing in the rules of plant nomenclature that refers to specimens collected in the same locality as the original type specimen (usually many years after the original collection). The idea is that they are likely to represent the population of plants seen by the original collector. In many cases, this is true. However, it is necessary to carefully compare such a collection with a holotype before giving it any credence as an authentic representative of the species – otherwise the original population may have disappeared from the original collection site, or, in the worst case, it may have been replaced by a different, but similar, species that more-or-less fits the original description.

If you have any interest in understanding bromeliad species, nothing beats having as many type clones in your collection as possible. You might, of course, find clones from any of the types of types. Just remember, before you start paying premium prices, that all type clones are not equally valuable. Given a choice, put your money into clones of types that most nearly reflect the intent of the original describer.

SHOW DATES TO REMEMBER
DATES: April 16, 2010 – Enter Plants
 April 17, 2010 – Plants Judged
 April 18-19, 2010 – Show

T-Shirts Still For Sale