

# JOURNAL

## OF THE BROMELIAD SOCIETY

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NOV/DEC 2012 & JAN/FEB 2013

Harry E. Luther Memorial Issue



# JOURNAL OF THE BROMELIAD SOCIETY

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Front Cover: *Vriesea harrylutheri*. Photo by Hiroyuki Tazikawa. This plant, a pup from the plant that bloomed in 2007, was entered in the Bromeliad Society of Japan show and won the Grand Prize. Story on page 252



Back Cover: *Puya harrylutheri* sp. nov. Photo by Eric J. Gouda. Story on page 255

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## Time & Distance

*Evan Bartholomew*



This closes the last issue of JBS 62, and I can't think of anything more fitting than this tribute to Harry Luther, a man who accomplished much in his time. I hope that he is honored by all of the contributions from people who he touched with his life and his work, and smiling at the new plants bearing his name.

As we begin the new volume, I hope that anyone who has been thinking about submitting, or waiting to complete their materials will feel inspired to send their submissions in. The journal is only as good as its content, and in order to cross the finish line of getting the journal back on schedule, which is 1 issue away, and keep it on schedule, we need your help to fill these pages.

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## Conference Corner

*Bonnie Boutwell*

Now that the announcement has been made and planning is well underway for WBC 2014 in Paradise, we must begin to think of where we are going to meet in 2016.

I know it seems like a long way off, but the BSI Board would like for me to begin the process.

Please talk to your local affiliated society and ask if they would be interested in sponsoring the event.

Drop me a line or give me a call to be considered for hosting the 2016 WBC.

Bonnie Boutwell  
e-mail: [bbout@aol.com](mailto:bbout@aol.com)  
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## Memories Of Harry Luther

Mike Bush



Figure 1. A young Harry Luther, ca 1980. Photo from Bruce Holst, photographer unknown.

had a wide and professional knowledge of plants - obviously more than many of us in the class, as he had been managing the Nursery for Webb's City, a crazy, mammoth department store that was part future mall or Wal-Mart and part vaudeville. The retail nursery operation was similarly huge and also bid on landscape installations. Harry related to me that the "nursery cans" (usually old soup or egg cans) were the primary container, and eventually would rust through in nursery or planted in the Florida sands. However it was still not a good idea to plant them in their cans, so Harry would have to

*Below is a note I wrote to a former colleague in Singapore, Anton van der Schans at Gardens by the Bay, where Harry Luther came to work in February 2010. Like me, Harry had signed a 3-year contract and was looking forward to completing his work there and returning to the USA and most surely to Florida in February, 2013. He died in Singapore in October, 2012, way too young and with many ideas to complete and way too many friends that enjoyed him.*

*In the note, I am responding to Anton's request that I provide some information about Harry's life before Singapore, and perhaps even earlier, as Anton was aware that Harry and I worked together at Selby Botanical Gardens in the early 80's. For publication, I've chosen to leave much of the note as I originally wrote it - full of sorrow and angst and tearful memories, simply tweaked here and there as necessary.*

To Anton:

It's good to see your email - and sorry that it is under such sad circumstances. I feel the world is a bit smaller today - and the horticultural part of it smaller still.

Harry was 60, and only two weeks older than I. We met after high school in a class learning botany through Florida's native plants in junior college in St. Petersburg, Florida during the summer of 1971. At that young age of 19 he already

pull a few plants out of every line of Surinam Cherry hedge to be sure the help hired off the street each morning was actually removing the plants from the cans.

While we both grew up in St. Pete, he seemed to find his way to plants more thoroughly and sooner, discovering many small operations that went out of business prior to the plant boom of the 70's.

He was responsible for much of the operations at Earl J. Small's Growers in Pinellas Park, FL, a neighboring town to St. Petersburg, where he bred gloxinias and produced hundreds of thousands of plants for wholesale, including *execum*. This was an 'old style' operation, with all plants grown under aging wood and glass houses. Very professional and rather prolific.

While Harry was still working at Small's, he began collecting in Mexico, usually driving overland through Texas (a distance of 3,000 km; Singapore to Rangoon, Burma is only 2,500 km!), bringing back specialty plants that he and an early nursery partner would sell in their private nursery. While Florida has many species of *Tillandsia*, I think it was on these Mexican trips that Harry really saw the diversity in the genus and began to be very interested in bromeliads. He knew Mulford B. Foster, longtime bromeliad expert in central Florida and had his respect. Later the Bromeliad Identification Center at Selby would be named for Mulford Foster.

Harry never drove. While his eyesight could find an orchid in a tree 50 meters away and 20 meters high, issues of depth perception and judging speed kept him to taxis, his favored transport even in Florida - where you can NEVER EVER find one by waiting at the street. You must call first. He did take the bus, and as a result saw much more of wherever he was living (he only lived in St. Petersburg or Sarasota, Florida before moving to Singapore) as he was freed from the responsibilities of driving.

Even in the early 70's he was great in the field, fun to work with and amusing in his careful, often-acerbic views of the world. He smoked to a fault and only quit after by-pass surgery ten years ago. He hated having his picture taken and went for years without a successful capture. It's true that he had a fondness for cats. At Selby Botanical Garden, there was always a "garden cat" or two and Harry would look out for them, taking them to the Vet for their needs and ills. He also had a cat or two at home. During my short time in Singapore, I knew him to gently care for several litters of stray cats that appeared at his apartment building.

In the early 80's while I was at Selby, Harry came to work weekends, taking the bus over the Sunshine Skyway coming and going from his home in St. Petersburg, a trip of 75 km. All this effort for a part-time job with no benefits at low pay so that he could work with one of the best growing collections of epiphytes on the planet. And work with the leading researchers of the day in epiphyte taxonomy: Hans Wiehler, Mike Madison, Cal Dodson, Carl Luer and Kiat Tan. He quickly saw gaps in the collections and began sourcing and collecting important additions, focusing on bromeliads. Soon he was collecting on Garden expeditions in South and Central America - and was always very much a general collector, instantly recognizing a plant as new to him, the Garden, the nursery trade or science. His background in horticulture at Earl J. Smalls also allowed him to see the horticultural value in many plants others would overlook. I think that this is where Harry is most





Figure 2. Harry Luther with Mike Bush, standing in front of a Ceiba tree at Gardens by the Bay, Singapore, in 2009. Photo by Dennis Cathcart.

misunderstood. He is cursed by his superior and deserved reputation with bromeliads, in that many think that is all that mattered to Harry. This is far, far from reality. For years at Selby, Harry would set out plants in the gardens and then wind up planting them, helping to diversify the collections - often to the consternation of supervisors like me. And yet he was usually correct, it was only his methods that were maddening at times.

Following on the success at Selby of the Orchid Identification Center begun by Dr. Kiat Tan, the Garden started the Bromeliad Identification Center (BIC) with Harry as the Director. That did NOT excuse him from his duties with plants that had been expanded from part-time weekend waterer to Greenhouse Supervisor. To make up for low pay, Selby provided Harry with a set of rooms in the Old Selby House on the grounds of the Garden

(not the fancy house seen from the street!) He lived in the old Florida home that housed the Gift Shop and meeting rooms. His home was the "servants quarters" - where I had lived previously. With a tiny bedroom above the former garage (meeting room) connected to the tiny main floor galley kitchen with a very narrow and steep stairway, Harry lived in the very heart of the Garden and only a few steps to the Greenhouses. Harry had found his niche.

For thirty years, Harry worked at Selby, never giving up any of his horticultural responsibilities and growing his focus on the BIC and publishing. Harry was at times faulted for never having achieved a college degree, yet through his seven-day-a-week focus on plants, widespread and regular collecting plus meticulous observations, he gained international respect. His colleagues in Singapore cannot imagine the Harry they knew as being nimble and quick - as he was before he broke his back in a fall while reaching for yet another choice plant in Ecuador.

In fact, my last communication with Harry was regarding a retired WWII veteran living in my new home town of San Luis Obispo, California, who in retirement grew lots of bromeliads. At 92, he came to the Garden after we both realized we knew Harry. His opinion? "Whenever anyone had a question about a bromeliad and couldn't get an answer, you knew it was the final word when it came down from on high - from Harry."

I don't know how many Executive Directors worked at Selby during Harry's tenure - way too many. In fact I overheard a conversation among garden directors in an elevator at a national conference in Asheville, North Carolina in 2001, as they wondered, "What's going on at Selby? Have they have gotten rid of another director?"

Eventually this parade of changing executive directors led to Harry witnessing that science and plant collections were not as valued to the Garden as Harry knew to be important. Harry made the tough decision to leave his home of 30 years, and the only region he had ever lived to move himself and his research to Gardens by the Bay, Singapore in February, 2010.

He died four months short of the end of his contract and a return to his Florida.

I already miss his spirit, his dry satire, blunt assessments and soft generosity. He suffered no fools -- and would let you know when you fit into that category. I respect him for his patience and longevity at Selby, striving to keep that Garden relevant in today's world of botanical science and horticulture.

I also admire him for his pluck and spunk to leave such a comfortable and familiar situation and move to Singapore and Gardens by the Bay rather late in life, and bringing his entire work with him. The most frustrating part of work at GB was not being able to DO work. He had always worked with his hands, growing and propagating plants. He felt that the system of contracted labor was crippling Gardens by the Bay's ability to move forward, as staff were only allowed to be 'contract managers', not gardeners - all in the name of false efficiency.

Again, today's world is a smaller place - and the horticultural and botanical world a smaller place still.



## Vale Harry

Derek Butcher

I first met Harry Luther in 1991 when he was the guest speaker at the Australian Bromeliad Conference in Sydney. I even had the honour of being in the selected band of 'Experts' to sit on stage and answer bromeliad questions. No doubt Harry could have answered the questions without the need of others giving moral support but he allowed us a fair share. At my size I had to look up to him but even so, he was a giant of a man with loads of Bromeliad knowledge.

I was keen on tillandsias and it was about this time that I got involved with Renate Ehlers and started helping her translate to English her many new species. She had previously worked with Weber and Rauh but was now doing her own thing.

In spreading her wings she sought international recognition and who better to correspond with than Harry. Often I would get that cc of an Email to Harry asking for advice as to whether this new species was really new and you could almost hear the sigh of relief when an affirmative advice came through. This did not mean we accepted all advice as gospel. For example Harry considered that *T. leonamiana* was the same as Renate's *T. meridionalis* var. *subsecundifolia*. In trying to prove otherwise we did find a snag as to what really constituted *T. leonamiana* and this still remains unresolved but Harry did get us thinking. Another example revolved around whether *T. ionantha* var. *scaposa* was the same as *T. kolbii* which I think 'we' won with *T. scaposa* and *T. kolbii* being treated as separate species. *T. kolbii* has suggestions of it being a natural hybrid and thus rare in the wild.

Why am I telling you this? While Renate has the ability to identify a new *Tillandsia* at 40 paces, Harry had the same gift with all bromeliads. He did not ignore our pleas for help which he could have so easily done, but gave his opinion for which we thank him. Harry Luther made the Marie Selby Botanical Gardens in Florida, USA the world focal point for Bromeliaceae enquiry.

We will remember him for all the advice he gave and it will be hard indeed to find a replacement.

Derek Butcher, Adelaide, Australia



Figure 1. Harry Luther, photo Bruce Holst

## About Harry

Chester Skotak

I missed Harry even when he was alive. I looked all over Selby Botanical Gardens that day but Harry'd gone...that's how Harry worked. Sometimes he was and sometimes he wasn't.

Harry Luther was a barber's challenge and sometimes slept in his office. I once offered to buy him an iron...no, he wasn't interested. That was Harry, and most of us never thought much about his general appearance. He was our botanist and knew everything to be known about bromeliads. His sense of humor was dryer than equatorial Mars. He didn't care if you traveled from Costa Rica, were a visiting botanist or the President of the United States. If Harry wanted to see you, he would. And if he didn't, you were left kicking acorns out in the parking lot and cursing your own bad fortune.

I can't remember when I met Harry...must have been over 30 years ago. I was working at a botanical asylum in San Vito de Java, Costa Rica. In those days I was looking for my escape from what others had described as paradise. In my spare time I botanized the area around the gardens. Across the dirt road in the crotch of a tall, naked stump grew a clump of an odd *Vriesea* with a colorful inflorescence. It looked out of place...a large, strap-leaved plant that was unfamiliar to me. I fished one down and decided to tame its wild nature. I put it in a pot. Our botanical arrogance allows us to falsely believe that we all know better than Mother Nature.

Eventually I escaped the botanical asylum, built a business and had this new *Vriesea* growing in my greenhouse...only one plant. Jason Grant, a young, promising taxonomist, dropped in unexpectedly, and the unknown *Vriesea* was in full flower. He wanted to research it, so I yanked out the spike and a few leaves and casually asked him to name it for Harry if it proved to be new. A year or so later, in 1992, Jason's description of this new species was published in the Journal of The Bromeliad Society. Years later Jason reminded me that he was impressed because I ripped the inflorescence and some leaves out of the only plant I had in my possession. But it turned out to be the right decision. Harry deserved more credit than his work gave him. This plant came to be known as *Vriesea lutheriana*. I don't have that *Vriesea* anymore and never saw it again in the wild. Sometimes I wonder if that *Vriesea* didn't escape from the gardens just like I did.

Over the years I sent Harry lots of plants to ID, and he always found the time to give me his opinion. He was generous with his knowledge and the botanical collection. Harry eventually escaped Selby and continued writing me from Singapore. He was working at a botanical garden of a different sort. I appreciated his enthusiasm. We communicated about some new bromeliad species which he planned to describe. In the recent past Harry published *Vriesea skotakii*, a plant I had collected long ago in Panama. I read his article, gobsmacked, realizing that Harry was a true friend. When I heard he had passed away, the first thing that came to mind was that Harry, once more, just wasn't in the mood to talk to anyone. He was gone. And for Harry's dry sense of humor I can only add that we should cherish our close friends and family, even our eccentric botanist...one never knows...Harry today, gone tomorrow.



Figure 1. *Vriesea lutheriana*, photo by Peter Tristram.

## *Vriesea harrylutheri* In Sterile Growing Medium

Hiroyuki Takizawa MD, PhD



Figure 1. *Vriesea harrylutheri* flowering during November 2007. It was blooming for the first time in my collection. The very thick leaves are densely covered by trichomes, giving the plant a white appearance. Photo by Hiroyuki Takizawa.

*Vriesea harrylutheri* is a relatively recently described species, published in *Vidalia* (ISSN 1679-6837) v. 2, n. 1, janeiro-junho, 2004, by Elton Leme and Greg Brown, in honour of Harry Luther. This species has not been pictured in the BSI journal in the past. Still very rare in cultivation, it is highly attractive with very thick, coriaceous, white leaves and large, night-blooming flowers (Figure 1 and 2).

Known only from the type locality in the county of Serra, Espírito Santo State, *Vr. harrylutheri* grows side by side with *Vr. plurifolia* Leme, forming dense populations on vertical, bare escarpments at about 200 m elevation. Closely related to *Vr. apparicana*, this species has broader leaves (6.5cm) that are distinctly silvery-white colored.

In my collection this species bloomed in November 2007 for the first time and December 2012 for the second time (Front Cover). I was lucky to obtain several seeds from self pollination after the first blooming. I introduced them to a sterile growing environment. Germination was successful and they started to grow (Figure 4).

*Tillandsia* species grow really quickly in my medium (modified MS medium). In contrast, *Vriesea harrylutheri* grows very slowly. I guess my medium was not really

optimal for this species, but they grew healthily enough. Three years ago, some of the seedlings were successfully moved to my greenhouse and now they are about 15 cm in diameter (Figure 5). They are all very healthy and I didn't lose any after acclimation.

I am trying to get abundant seeds from manual self-pollination to increase the supply of the species, as well as cross-pollinating with other species to see what new hybrids arise. I am now dreaming of making this species widely available and of the creation of unique new hybrids. *Vr. harrylutheri* will live forever with our love of these wonderful bromeliads.

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Figure 2. Close-up of the open flower of *Vriesea harrylutheri*. Photo by Hiroyuki Tazikawa.





Figure 3. Seedlings of *Vriesea harrylutheri* growing under sterile conditions. Photo by Hiroyuki Tazikawa.



Figure 4. Maturing specimens (raised from seed) of *Vriesea harrylutheri* growing under normal greenhouse conditions. These plants are growing very well in my greenhouse. They prefer very bright light. Photo by Hiroyuki Tazikawa.

## A Very Rare Nocturnal Flowering New *Puya* from Amazonas, Venezuela

Eric J. Gouda, *Utrecht University Botanic Gardens*

It was not the first time that this plant had flowered at the Utrecht Botanic Gardens, but an earlier flowering was abortive with a very short inflorescence that barely came out from between the leaves. It looked so weird that I did not pay much attention to it. In May 2011 it flowered again, but after missing some of the flowers (already faded in the early morning), I took the plant home to see it in full bloom and take some good pictures of it.

At first I thought that it was a *Pitcairnia* species close to the (inselberg) rock dwelling species like *Pitcairnia bulbosa* Smith (1955: 178) that do have a *Puya*-like rosette. A DNA test done by Dr. Michael Barfuss, University of Vienna, proved that this new species is closer to *Puya* than to *Pitcairnia*. It will be interesting to test *Pitcairnia bulbosa* the same way, to see the relationship of that species with the genus *Puya* and this new species.

### *Puya harry-lutheri* sp. nov.

A *Puya killipii* like species, but smaller (ca. 1.20 m vs. 2 m); leaf sheaths 2.5 cm long, thin and entire (vs. 4 cm long and serrulate in *P. killipii*); floral bracts relatively small, exceeded by the pedicel of the flower, entire (vs. about equaling the sepals and mostly serrulate); sepals much larger (4 cm vs. 2.4-3 cm); petals much larger (6.8 cm), brown and green outside (vs. 4.5 cm and blue).

TYPE: Venezuela, Estado Amazonas, Savana near Puerto Ayacucho near the border with Colombia, Anonymus s.d. Grown (from Nursery Corn. Bak) at the Utrecht Botanic Garden with number 2005GR01559, flowering May 2011 (holotype L, isotype VEN).

PLANT acaulescent, 30 cm tall, flowering much taller, leaves not dense, with ca. 35 leaves, forming an open, silvery white pruinose rosette. LEAVES much shorter than the inflorescence, persisting, not narrowed at the base, homomorphic; sheaths whitish with closely appressed scales, adaxially glabrous, sparsely lepidote, with thin margins, entire, 2-2.5 cm long, 5 cm wide, very broadly obovate, fleshy, pale brown and castaneous; blades spreading and arching, somewhat stiffly coriaceous, channeled, linear triangular, 50-60 cm long, 2-2.5 cm wide, laxly dentate with narrow dark brown 1-3 mm long antrorse spines, long attenuate, pungent, very densely lepidote to partly glabrescent, with closely appressed pruinose whitish scales on both sides. INFLORESCENCE 65 cm long, 13 cm wide, with 40-50 flowers, including the peduncle 110 cm long, lax, simple or with a rudimental branch at the base, greenish to brownish. PEDUNCLE bracteate but partly exposed, erect, 45 cm long, 10 mm in diameter, glabrous, green tinged brownish at the nodes; peduncle-bracts: the lower ones foliaceous, sparsely lepidote to glabrescent, (nearly) all exceeding the internodes but so narrow to expose part of the peduncle, attenuate, serrulate, erect, brownish-red and green. RACHIS elongate, wholly exposed, slender, straight, subterete, internodes 1-3.5 cm long, glabrous, green and tinged brownish. FLORAL-BRACTS small, remote, glabrous outside, entire, with thin margins, exceeded by to about equalling the pedicel, 11.5 mm long, 8 mm wide, subobtusate, ovate, prominently veined, chartaceous, incurved, divergent with the pedicel, green and partly black (dry) in the upper half at anthesis. FLOWERS divergent and ascending, exclusive of the pedicel 7.5 cm long, distinctly pedicellate; pedicel 1.8 cm long, fleshy and obconical. SEPALS fleshy, 4 cm long, 1.1 cm wide, ecarinate, glabrous on both sides, convex and boat-shaped (cymbiform), slightly cucullate at the very apex, not obviously veined, ovate-lanceolate, slightly

asymmetric, with thin margins, obtuse, green and tinged reddish. PETALS obovate-lanceolate (subrhombic), 6.8 cm long, 1.4 cm wide, acutish or obscurely apiculate, with 2.5 mm wide claw, brown and abaxially green nerved to wholly green downwards, ligule on petal claw absent. STAMENS exceeding the pistil, 6 cm long, included, but visible from the corolla throat; filaments flat at the base but upper part dilated and more subterete, sinuous, 4.5 cm long, whitish to brownish upwards; anthers basifixed, linear, 15 mm long, cream-green; pollen pale yellow. OVARY for two thirds inferior, inferior part obconical, 15 mm long, tapering into the style; ovules obtuse, placentation axile, ovoid; style slender; stigma lobes linear-conduplicate, contorted.

### Observations

Although this new species is primarily compared here with *Puya killipii* Cuatrecasas (1944:38), it looks more similar to some *Pitcairnia* from the subgenus *Pepinia*, like *P. bulbosa* and *P. maguirei* Smith (1960:17). Two other *Puya* species have been described after the publication of the Monograph of the Pitcairnioideae by Smith & Downs (1974) and were compared with *Puya killipii*. These are *Puya solomonii* Varadarajan (1989:121), which

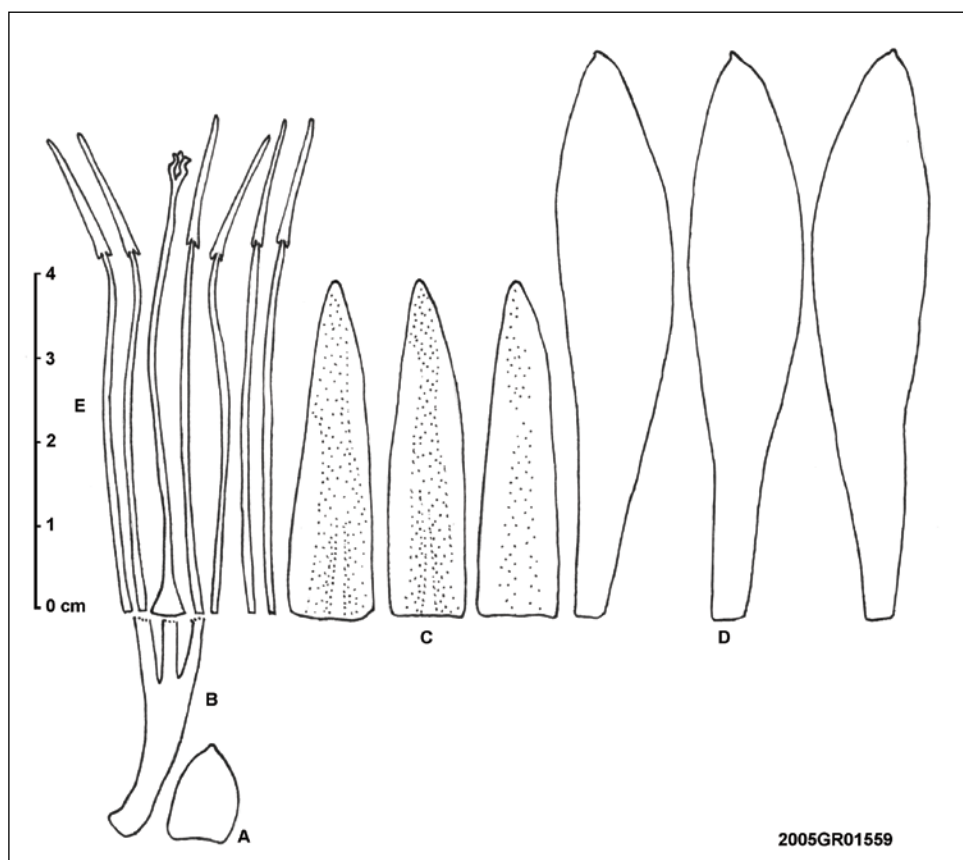


Figure 1. Drawing of the type of *Puya harry-lutheri*. A. floral-bract, B. pedicel and inferior part of the ovary, C. sepals, D. petals, E. stamens and superior part of the pistil (ovary, style, stigma). Drawing by Eric J. Gouda.



Figure 2. The type specimen of *Puya harry-lutheri* in flower at the Utrecht University Botanic Gardens. Photo by Eric J. Gouda.



has a compact compound inflorescence and *Puya ibischii* Vásquez (2004:99) with a simple inflorescence, but very broad nearly sessile flowers. Not many Pitcairnioideae seem to be nocturnal. It is known for a handful (mainly Brazilian) Pitcairnia species, but as far as I know only for one *Puya* species, *Puya wrightii* Smith (1966:145). This species has a simple inflorescence too, but longer floral bracts (exceeding the pedicel), is densely flowered and lepidote except the petals.

Using the key of subgenus *Pepinia* in Smith & Downs (1974:246) this new species keys out to *P. maguirei* therefore it is also compared with this species below. At this moment it is not fully clear how to position these *Puya* like *Pitcairnia* (*Pepinia*) species within the *Pitcairnioideae* (Pers.comm. with Walter Till) and it well could be that a transfer to *Puya* is necessary or a new genus needs to be created for them.

Main differences to *P. maguirei* are: leaf blades 2-2.5 cm wide (vs. 1.7 cm wide); rachis slender, 5 mm in diameter at base (vs. rachis stout 8 mm in diam.) floral bracts 11.5 mm long, obtuse, green and partly black in upper the half at anthesis, shorter to about equaling the pedicel (vs. 25 mm long, red with a narrow pale margin, equaling to exceeding the ovary, acute); pedicel ca. 1.8 cm long (vs. nearly none); sepals ovate-lanceolate (vs. linear-lanceolate); petals 6.8 cm long, brown and abaxially green nerved to wholly green downward (vs. pale green throughout).

### Etymology

This species is named in honor of the late Harry E. Luther. He was always very helpful with doubtfully named plants and with discussing new species. We are very thankful for all contributions of Harry to “Brom-L Casus Pro Diagnosi” at the.florapix.nl (Bromeliad Gallery). Harry was a friend and bromeliad specialist we all are going to miss so much.

### Acknowledgements

I want to thank Michael Barfuss and Walter Till from the Department of Systematic and Evolutionary Botany, University of Vienna, for testing the DNA against other *Puya* and *Pitcairnia* species.

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Figure 3. The type specimen of *Puya harry-lutheri* close up of flower at the Utrecht University Botanic Gardens. Photo by Eric J. Gouda.

## Learning From Harry Luther

Brian Sidoti, *University of Wisconsin–Madison*



Figure 1. Lucia Hetcheverria, Brian Sidoti and Harry Luther in a research greenhouse at Selby during 2007. Lucia was a PhD candidate from Cuba studying bromeliads. Photo by Bruce Holst.

I first met Harry in 1999 at the Marie Selby Botanical Gardens (MSBG). Harry was one of the first guest lecturers to our group of three MSBG interns. I was struck by Harry's brilliant presentation. He rattled off species names of bromeliads, orchids and other tropical epiphytes with ease and talked about their natural history with a commanding voice. Little did I know the lifelong impact Harry would have on my career.

Research interns at the MSBG require an advisor and I was privileged to have Harry as mine. When most people met Harry for the first time, he could come off as rather gruff, especially if topics do not revolve around plants. His (then) disheveled shoulder length hair, brief responses during conversations and habit of working behind stacks of books did not help facilitate a warm and inviting atmosphere. But if you were one of the lucky few able to earn Harry's trust and respect (and were able to talk about plants) he opened up. For my research project, much of my time was spent sorting through debris of *Tillandsia utriculata* leaf axils. Harry would provide guidance through meetings or leave notes indicating references to investigate. With my own shy disposition, trying to navigate a conversation with Harry must have been entertaining to watch, yet our conversations grew more effortless as our mentoring relationship developed.

A few months after my internship ended, Harry offered me a part time job as his administrative/research assistant at the Mulford B. Foster Bromeliad Identification Center (BIC). Although Harry worked with the MSBG living collections during most of the day, he crossed the US Highway 41 to work at the BIC (then in the 711 building) later in the afternoon/evening and on weekends. His odd work schedule complemented my own since I was fully employed at the University of Florida-Gulf Coast Research and Education Center. As Harry's assistant, I was tasked with two challenges, maintaining correspondence and organizing the BIC files including taxonomic files, slides and herbarium specimens. As many people know, corresponding with Harry, especially via email, can be sporadic, so it was part of my duties to remind and nudge him often by leaving a stack of papers on his chair when our paths did not intersect. Also, I had the difficult task of reading Harry's handwriting when dealing with general communication or when he worked on articles. Beyond the administrative duties, Harry taught me how to edit manuscripts, become more familiar with bromeliads and how to properly curate collections, all skills that have helped my career/graduate school education.

Harry was the embodiment of what a botanical garden should be, dedicated to promoting research, display and education. Harry spent his life curating the living research collections and using them as a tool for display to increase knowledge and awareness of plants. His commitment to public outreach was tremendous. He spent hours of his time attending and presenting at local, regional, national and international plant society meetings. In between these activities, he was able to publish over **200** technical and popular articles, many in the *Journal of the Bromeliad Society* and *Selbyana*. His rough exterior concealed a passion for educating the scientific community and the public about the fascinating world of tropical plants. His skill at communicating through display and writing was remarkable.

Harry is recognized as a world authority in Bromeliaceae, even though he did not complete a college degree. His passion for plants and a strong work ethic are reflected in the quality of his research including: *De Rebus Bromeliacearum*, I (1994), II (1997), III (2001) and IV (2010) that referenced taxonomic changes after Smith and Downs' *Flora Neotropica* monographs (1974, 1977, 1979); the series *An Alphabetical List of Bromeliad Binomials* and co-authored a book *Native Bromeliads of Florida*. Researchers from around the world interested in bromeliad, orchid and gesneriad taxonomy and biology visit the MSBG to use the living, taxonomic and herbarium collections. In particular, the research living collections that were largely built, cared for and promoted by Harry, are utilized for molecular studies on plant systematics, evolution and biogeography.

One of Harry's greatest commitments was to the education of students. I watched him directly mentor several students from Brazil, Cuba, Costa Rica and assist with others from Ecuador and the US. I have known for many years Harry's remarkable talent as a mentor, but only recently have I become more reflective of specific skills he possessed. This past semester I took a class on how to become a better mentor and even before Harry's passing I thought of my mentor and friend. Harry intuitively had many qualities that make a good mentor. Harry was a careful listener and supportive.

He challenged me intellectually, stressed the importance of disseminating results and helped build my professional network. Harry encouraged me to publish my internship project results and start another project on *Metamasius callizona*, the exotic weevil that is destroying the native Florida tillandsias. During one of the local bromeliad society meetings an audience member asked Harry a question about the weevil and he referred that person to my research findings and said I would be the best person to ask. Harry was also instrumental in providing the resources and contacts so that I could attend a graduate level education workshop in Peru. That trip was the impetus for me thinking about graduate school. I plan to use his superb mentoring skills as a model throughout my academic career.

When Harry and I discussed project ideas for a Master's thesis, he suggested working on the *Tillandsia fasciculata* group because this complex needed revision and occurs in the Caribbean, which would ease travel logistics and costs. To this day, I do not know if I should thank or curse him for that idea since I have now spent nearly a decade studying this group. I took a morphometric approach for my M.S. thesis research on this complex through the Fairchild Tropical Botanic Garden/Florida International University program. With advances in plant systematics and discovery of more questions on the *T. fasciculata* group, I am using molecular markers to examine the evolutionary history of the complex for my Ph.D. research at the University of Wisconsin-Madison. Throughout my graduate studies, I would make occasional return visits to MSBG and Harry was always there to provide advice, either in his office in the BIC or in the Tillandsia house at the MSBG. During one of my visits, a highlight was seeing a plant I collected during my M.S. studies displayed in the MSBG conservatory.

Over the years, my relationship with Harry evolved. After work or needing a break we would grab a bite to eat at Two Senioritas, Bangkok Restaurant, or Subway. Of course we would discuss plants and MSBG, but topics beyond science were talked about such as his family, his cat and national politics. Harry had a sharp sense of humor. I remember at the Tillandsia symposium in San Diego he mentioned his presentation would not contain any phylogenetic trees with difficult to read species names at the tips of the branches. Harry became not only my mentor, but also my friend.

Harry's insight, encouragement and dedication to botany and horticulture, especially bromeliads, was inspiring and will be sorely missed. One of his finest contributions to science was his commitment to educating and training future botanists who might carry on the work for which he dedicated his life.



## *Racinaea lutheri* , A New *Racinaea* From Amazonian Ecuador

Jose Manzanares and Walter Till



Figure 1. Habitat of the *Racinaea lutheri* in the cloud forest of the Amazon region of the province of Morona Santiago. Note the new growth and maintenance of the old plants that become dry. Photo by José Manzanares.





Figure 2. Church in Indanza, in the back the mountains of the Type in Morona Santiago. Photo by José Manzanares.

### Introduction

Species of the genus *Racinaea* are sometimes not easy to classify and therefore misidentifications occur like in the case of this new species which has been previously identified as *Racinaea dielsii*. However, if a detailed morphological analysis of the plant and the inflorescence is performed many different characteristics to identify it as a distinct species can be found and hence it is described below.

### *Racinaea lutheri* Manzanares & W. Till, *sp. nov.*

A *Racinaea dielsii* (Harms) H. Luther, cui affinis, laminis foliorum 8-9 cm longis, 0.5 cm latis (vs. 15-17 longis, 0.1-0.2 cm latis); inflorescentia foliis superante, (vs. foliis breviora vel paulo superante); spicis 0.9-2 cm longis, 0.8 cm latis (vs. 5 cm longis, 1.4 cm latis); et bracteis floriferis 0.8 cm longis, 0.8 cm latis, non imbricatis, carinatis (vs. 1 cm longis, 0.9 cm latis, imbricatis, ecarinatis) differt.

TYPE: Ecuador, province of Morona-Santiago: cantón Limón Indanza, antenas arriba de Limón, 02°56'S 78°31'W, 2110 m, 13 April 1997, J.M. Manzanares, E. Girko, J. Raack, E. Doherty & M. Navarro 6368 (holotype: QCNE).

Other examined material: Ecuador, province of Morona-Santiago: cantón Limón Indanza, Cerro Ijiach Naint, Cordillera de Huaracayo, a este del río Coangos, 03°15'51''S 78°10'13''W, 2000 m, 21 March 2001, J.M. Manzanares, D. Neill, P. Berry, L. Jost & B. Patterson 7232 (paratypes: MO, QCNE).

Epiphyte, 25-30 cm long including the inflorescence, forming individual rosettes or small groups of plants. Foliage of few leaves, coriaceous, leaf sheaths forming an elliptic elongate pseudobulb, lepidote. Leaf sheaths 5.5-6 cm long, 3 cm wide, ovate, densely

covered with brown indumentum, concave, nerved. Leaf blades 8-9 cm long, 0.5 cm wide, linear, gray-green, lepidote, involute, apex attenuate. Inflorescence 11 cm long, 2 cm wide, once branched, lax, erect, with 6-8 spikes, axis lepidote, green. Peduncle ca. 13 cm long, 0.1-0.2 cm wide, erect, equaling or slightly shorter than the foliage, lepidote, green. Peduncle bracts 1.5 cm long, 0.5 cm wide, longer than the internodes, not imbricate, green, sheaths ovate, apex attenuate. Primary bracts 1-1.2 cm long, 0.8 cm wide, ovate, apex acute, covering the stipe, green, lepidote, erect or slightly spreading, carinate in the upper part, strongly nerved. Spikes ca. 3 mm stipitate, 0.9-2 cm long, 0.8 cm wide, green, subdense, complanate, 5-8 flowered, apex with sterile bracts; rachis geniculate, quadrangular, margins subulate, covered with ferruginous indumentum; flowers distichous, subsessile, erect during anthesis and parallel to the axis. Flower bracts 8 mm long, 8 mm wide, orbiculate, acute and apex incurved, the upper ones exposing the sepals, the lower ones equaling or slightly surpassing the sepals, slightly lepidote, green, not imbricate, carinate, strongly nerved. Sepals 5 mm long, 4 mm wide, free, obovate, obtuse, lepidote, coriaceous, asymmetric, ecarinate. Petals white, 6 mm long, white. Filaments 3 mm long, anther 2 mm long, forming a cylinder around the stigma. Ovary 3 mm long, subcylindric; style 1 mm long; stigma 1 mm long. Capsule 1.7 cm long.



Figure 3. *Racinaea lutheri*. Detail of the inflorescence. Photo by José Manzanares.

According to its general appearance it is closely related to *R. dielsii* from which it differs by: leaf blades 8-9 cm long, 0.5 cm wide (vs. 15-17 cm long, 0.1-0.2 cm wide); inflorescence surpassing the foliage (vs. shorter or only slightly surpassing the foliage); spikes 0.9-2 cm long, 0.8 cm wide (vs. 5 cm long, 1.4 cm wide) and floral bracts 8 mm long, 8 mm wide, green, not imbricate, carinate (vs. 10 mm long, 9 mm wide, imbricate, ecarinate).



Figure 4. *Racinaea lutheri*. Photo by José Manzanares.

Following the identification key by Smith & Downs (1977: 694) one ends up with *Tillandsia penlandii* L.B. Sm. with the following differences: leaf blades narrowly triangular (vs. linear), once branched inflorescence (vs. 2-3 times branched); spikes parallel to the axis of the inflorescence at anthesis, inflorescence 2 cm wide (vs. spikes spreading, inflorescence 8 cm wide); floral bracts 8 mm long, acute, carinate, equaling or slightly shorter than the sepals (vs. 4 mm long, obtuse, ecarinate, shorter than the sepals).

This *Racinaea* is named in honor of Harry E. Luther (1952 - 2012), the late bromeliad expert at Gardens By The Bay, National Parks Board Headquarters, Singapore, author of over 100 species of bromeliads and former director of the Mulford B. Foster bromeliad identification center at Marie Selby Botanical Gardens (SEL), Florida.

This new species has its habitat in the upper montane rain forest and cloud forest in the Amazon region, preferring the branches of trees exposed to radiation or small shrubs in the mountain summits with scarce vegetation. We have localised two populations: that from the Cordillera del Condor, which has a colorful inflorescence with red flower bracts, yellow sepals and white corollas; the other population is close to Indanza and usually displays a green inflorescence with white corollas. During anthesis the corollas are barely visible, the long fruit is exposed during fructification. Like many other *Racinaea* species it forms a pseudobulb with the leaf sheaths which are brown to reddish and shorter than the leaf blades, the latter being slightly canaliculated towards the apex. It forms small groups of several rosettes. After the production of seeds, the rosettes will dry and remain attached to the group until they finally are rotten.



Figure 5. Mountains close to Indanza-Limon where the Type collection was made. Photo by José Manzanares.



## Remembering Harry E. Luther

*Dennis Cathcart*



Figure 1. Harry Luther among the bromeliads grown at Garden By The Bay, Singapore in 2009

With the passing of Harry E. Luther on Wednesday, October 17th, 2012 at the age of only 60 years, the bromeliad world has suffered a great loss. In a world full of experts, there are very few authorities but Harry was one. One of the most prolific taxonomists of the past 30 years and more than that, a ‘hobbyist friendly’ taxonomist who was accessible to and took great pleasure in working with individuals interested in bromeliads at the hobby level. As Director of the BIC (Bromeliad Identification Center) Harry was sort of ‘the people’s taxonomist’ if you will. During his thirty two years at the Marie Selby Botanical Garden in Sarasota, Florida, Harry assembled the world’s largest living collection of bromeliad species, authored over 200 articles and described nearly 200 new bromeliad species. This record is a stunning testament to Harry’s dedication and leaves a legacy that will live on to benefit future generations of bromeliophiles.

Having one of the world’s leading authorities on bromeliads living and working only a few minutes from our nursery was certainly a handy thing, but we thought of Harry as much more than an accessible authority. Over the years Harry Luther had become a dear friend of our family and his loss is especially profound to us. I had first met Harry in the early ‘70s, when I joined the Florida West Coast Bromeliad Society in Saint Petersburg / Clearwater, Florida. In his very early twenties back then, Harry was already recognized as the local bromeliad authority and was considered a ‘wunderkind’ by most of the senior members that included Dr. Dexter, Dr. Logue, Jinks Watkins and other experienced growers of the day. As



a beginner to bromeliads, I clung to Harry's every word at the meetings and we soon became friends, swapping plants and talking bromeliads nonstop. When Harry first started at the Marie Selby Botanical Gardens, he was still living in St. Petersburg and commuted to work by bus, about 40 miles one way, for a part time position. In time his value to the fledgling gardens became obvious and Harry started full time and moved into a cramped attic apartment above a former garage in the 'Selby House' located in the heart of the gardens. He would most often commute back home to St. Petersburg on weekends. During this time Harry and I became very close friends and I would spend a lot of time at the gardens 'picking his brain' about bromeliads.

As Harry rose in stature in the scientific community and demands on his time became greater, Harry's trips back home on weekends became fewer and fewer. As the garden's only resident, Linda felt sorry for him living all alone with no one to talk to and no one to care for him. After the passing of his mother and especially after he had his heart attack, Linda would keep close tabs on him to be sure that he was eating properly and had groceries and more importantly; someone to talk too. Harry would sometimes spend hours in the evenings on the phone with Linda and they talked about anything but plants. Linda kept Harry up to date on our family activities and queried him about his health and gave him a sounding board to vent frustrations and talk about his health problems and just to be human. She never asked anything of Harry, something that few of us can say.

Some of our best recollections of Harry are the times we spent together with our late friend Wally Berg. Wally and I used to go on many collecting expeditions to Ecuador, Costa Rica, Panama, Belize, Colombia and beyond. Those were the 'good old days' mostly during the 1980s and '90s when you could bring in almost any plant material that wasn't on CITES and not worry about impossible paperwork. We would bring down many empty suit cases and bring them back full of botanical treasures and when we got them back to Sarasota, we'd call up Harry. More often than not we'd meet on Wally and Dorothy Berg's back porch amongst Wally's fantastic collection and go through the plant treasures, opening each case like a Christmas present. Wally and I would take out the plants and regale Harry with the stories of where we found them and what we had to go through to collect them and Harry would more often than not rattle off their names at first glance. The thrill came when from time to time we'd bring out a plant that Harry didn't recognize or one that he would become excited over. We separated them into piles, one for Harry/ Selby's collections or herbarium and a small stack of unusual ones for Wally and the rest for us. Wally was in it for the fun, I had to make a living out of building a collection and both of us got the greatest satisfaction giving specimens to Selby and Harry.

During his years at the Marie Selby Botanical Garden, Harry developed into an internationally known figure in the world of plant taxonomy. His time was in great demand and he worked an almost unbelievable schedule. His duties as Curator of Living Collections at Selby, took most of his time and he would work late into the night and all weekend on his duties as the Director of the Mulford B. Foster Bromeliad Identification Center. Established at Selby in 1978, Harry Luther was the first and so far only director of the BIC. A steady stream of bromeliads were identified and



Figure 2. Harry Luther with Dr. Kiat Wee Tan at Gardens By The Bay, Singapore in 2009

published in Selbyana, the Journal of the Bromeliad Society and other venues. The herbarium at Selby was filling up with herbarium sheets that Harry painstakingly prepared, many with multiple copies for exchange with other institutions. He was a very busy man and had little time for a ‘personal life’, especially since he did not drive a car. That said, Harry did have several close relationships over the years and was also an avid reader of mysteries. With a photographic memory and reading skills off the charts, he would devour books at an astonishing rate. Sensitive to his lack of opportunity to have much of a social life of the more traditional kind after work hours, we would often invite Harry to dinner or to visit other close friends. Some people would be surprised to learn that we would invite Harry to share Thanksgiving dinner or to come to our house on Christmas to enjoy the holiday with our family. Those that only knew Harry as a professional would express amazement when we’d say that Harry enjoyed going with our family to view Christmas lights. To us he was a dear and close friend...almost a member of our family.

Harry was a professional and more than that, a truly dedicated professional who lived his life’s interest. He dedicated his life to his work and spared no effort in elevating Selby Gardens to its status as a world class scientific institution. Some of his close friends feel that this also later came to break Harry’s heart when Selby began to change course and abandon some of the science in favor of, as he put it; “becoming

more of a park and wedding chapel". Harry's last days there were stressful as he resisted any change to his familiar and beloved lifestyle. He began to feel unwelcome in the institution that had become his home and life's work. About that time, Linda and I were involved with a new project; the Gardens by the Bay (GBB) in Singapore to which we were supplying a great many plants. Our mutual friend and founder of the Orchid Identification Center at Selby Gardens; Dr. Kiat Wee Tan, now CEO of the GBB project, also expressed concern for Harry's position at Selby and suggested that he may find a better opportunity at the new garden project in Singapore (Figure 1). With regional interest in bromeliads rising in S.E. Asia, bromeliads were planned as major part of their theme at the GBB. There was also keen interest in developing a center for bromeliad research in Singapore. Linda and I discussed opportunities available at the new project with Harry and encouraged him to visit to explore possibilities. Soon after, I took Harry over for his initial interview where he was received with open arms and made to feel so welcome that the decision was made much easier for him. Not long after that Harry resigned his long held position at Selby and packed his extensive collection of books and papers and made the move to his new home in Singapore. Once there, Harry picked up where he left off with doing identifications, contributing to various online bromeliad boards, writing articles and tackling the collections at the new garden (Figure 2). On our last visit Harry showed us the growing collections of reference materials and told us of his efforts to help with placement of and care for the plants in the displays. At the end of June, 2012 the gardens officially opened and Harry was looking forward to getting down to a more familiar routine of dealing with the scientific end of things. Only a little over three months after the grand opening of the Gardens by the Bay, Harry Luther passed away from a sudden brain hemorrhage.

I cannot allow myself to think anything but that his move to Singapore was a good one for Harry and that it would have led to greater and greater things for him in the future. Harry had made a home there and fit in well with the gardens staff. Harry had new travel opportunities and had already visited other counties in the region. As a favorite speaker at any bromeliad venue, Harry had made several trips to Australia for presentations where he was well liked and much respected. On his immediate agenda was a speaking engagement at the upcoming Cool Broms conference in Auckland, New Zealand in March, 2013. The Austral-Asian interest in bromeliads is at an all time high and Harry was in the center of all of it with his new position. His future was sure to be bright and dynamic.

Harry was a great man of science who lived his life exactly the way he wanted to. No tears should be shed for the kind of life he led or the things he didn't get to complete. Harry was very accomplished and was living the life of his dreams, immersed in his work in a world of his own choosing. He died too young, but left this world quickly after a full life of accomplishments. The sadness most of us feel is for our loss, for having to face a world without Harry Luther in it.

## Harry Luther's Links To Cultivars

*Geoff Lawn, BSI Cultivar Registrar*



Figure 1. *Neoregelia* 'Greenball', as grown in New Zealand. Photo by Peter Coyle

For over 30 years Harry Luther was the Director of the M.B. Foster Bromeliad Identification Centre at Marie Selby Botanical Gardens, in Sarasota, Florida. Growers would send flowering specimens to Harry as a “no idea” request to get identified or often hope for confirmation that the specimen was a certain species as labelled by the grower. The answer was sometimes affirmative or deemed to be another species, or even the indefinite “aff”, meaning “affinity with” indicating that there was some doubt, possibly needing further study. Reputed species of horticultural origin but with no wild collection data often proved to be hybrids, whereby Harry might nominate which species had been hybridised or even specify its cultivar name. Harry did lots of correctional identifications at Florida bromeliad shows and abroad, in private collections and home gardens, at conferences and through the Florida Council of Bromeliad Societies lecture circuit. This insight and experience in both live material and herbarium specimens resulted in Harry's article series “Misnamed Bromeliads” in the BSI Journal in 1988-1999 wherein some common or recurrent identification problems were clarified.

This merging of botany and horticulture through Harry's activities inevitably meant that the BSI's Bromeliad Cultivar Register ( <http://registry.bsi.org/> ) recorded cultivars named or identified by Harry, of which here are some sample entries plus extra research notes:



- *Neoregelia* 'Greenball' MSBG 1998-0121 *aff.* 'Fireball'. Acquired by Selby in 1998 from Elton Leme (2038) as an unidentified species which came from Roberto Kautsky's collection in 1992. Wisely registered by Harry in 2008 as *N.* 'Greenball' as it continues to spread in collections internationally. Over 20 years later, this "new" Brazilian species (Figure 1) remains undescribed but was discovered originally some years prior to 1992 by orchid collector Luciano Zappi in Venda Nova do Imigrante, State of Espirito Santo, Brazil.
- *Neoregelia* 'Fuchsia'. Parentage *N. carolinae* (?) x *concentrica* (?). Verbal commentary by Harry indicated I.D. of "cf. *N.* 'Amabilis'", referring to Dutrie's 1939 hybrid of similar parentage. *N.* 'Fuchsia' was originally from Brazilian grower Adda Abendroth prior to 1975 as seed of *N. carolinae* but probably it's a natural hybrid or garden hybrid, a flat pale green rosette with blushing fuchsia pink leaf bracts at blooming.
- *Guzmania* 'Fortuna'. (Figure 2). First discovered in 1984 by Mark Whitten of the Florida Museum of Natural History. Found in 1986 by Luther & John Kress in the cloud forests of Panama's Fortuna Forest Reserve in Chiriqui Province. This highly-ornamental torch-like flowering species with luminescent red scape bracts tipped white had been identified for years as a form of *G. lingulata*, as had several other similar clones discovered later in the region, including *G.* 'El Cope' and the intermediate form from Santa Fe. Later Harry determined that *G.* 'Fortuna' was a distinct species in its own right and he had plans to publish its botanical description as *G. speciosa* (ined).
- *Quesnelia* 'Tim Plowman'. MSBG 1983-0068. Cultivar of *Q. marmorata* with distinctive dark brown marbling on regularly recurled leaves arranged distichously. This clone was introduced at Selby and named by Harry in 1983. Timothy Plowman was a U.S. ethnobotanist and Curator at the Field Museum of Natural History, Chicago, who field-collected extensively in South America. *Q.* 'Tim Plowman' was first found by D. Sucre at Rio Bonito, Rio de Janeiro and given the I.D. number Plowman 12968.
- *Neoregelia* 'Lovely K'. Seed from a Brazilian garden was sent to Selby as *N. bahiana* but Harry assessed that the pollen parent was undoubtedly *N. carolinae*. Probably it was bred by birds or insects.

In yesteryear no self-respecting botanist would commit himself to identifying a specimen by photos alone. There was also always the problem of making allowances for cultivated specimens being depauperate or oversized, compared to the herbarium type specimens, which prompted Harry to write an article "When Can a Picture be Trusted?" (BSI Journal May-June, 1995, p. 117). Photography has become digital world-wide since then, with high resolution electronic images and sharp close-up shots as good as or better than the naked eye can see. Harry embraced this new online technology, identifying with confidence field trip photos of species in many genera, whether in habitat or collected specimens, particularly on the Brom-L discussion group in the FloraPix website (<http://botu07.bio.uu.nl>). He became affectionately known there by his constant closing entry initials 'HEL'.

Recently Oscar Ribeiro of Bromeliario Imperialis nursery in Rio de Janeiro, registered *Neoregelia* 'HEL' (Figure 3) in Harry's honour and memory, a tribute to the bromeliad botanist to whom so many are indebted by his lifetime's work.



Figure 2. *Guzmania* 'Fortuna', photo by Peter Tristram



Figure 3. *Neoregelia* 'HEL', photo by Oscar Ribeiro

*Ananas ananassoides*

Harry E. Luther

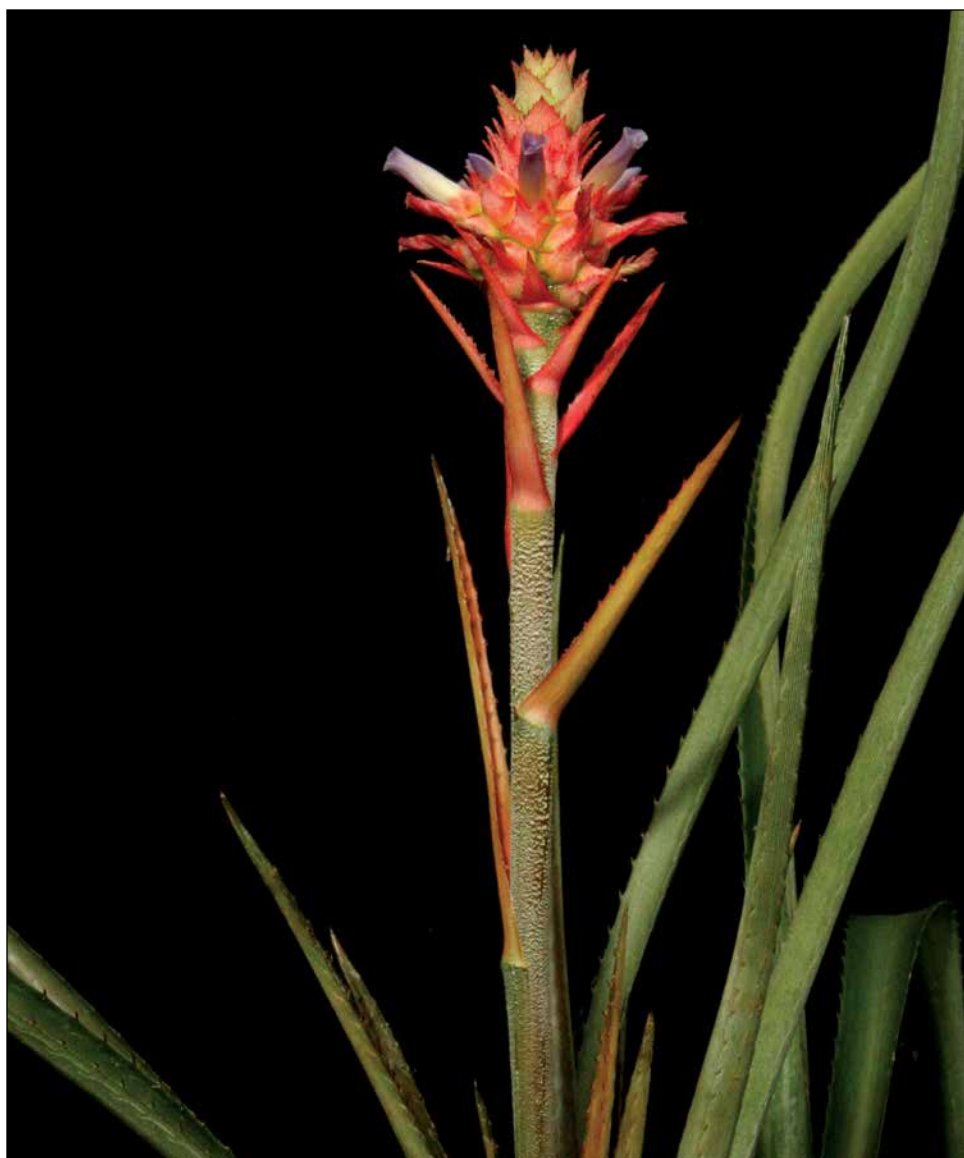


Figure 1. *Ananas ananassoides*. Photo by Dr. Phil Nelson

*Ananas ananassoides* is infrequently cultivated perhaps because of its unfriendly, spiny nature. It is rather widespread in semi-dry habitats in northern and eastern South America. From my experience plants are cold sensitive, at least my collections from Minas Gerais, Brazil seemed so in Sarasota, Florida. This species resembles the popular horticultural subject *A. nanas* but is much larger, to 1 meter or more in diameter.



*Pepinia beachiae*

Harry E. Luther



Figure 1. *Pepinia beachiae*. Photo by Dr. Phil Nelson

Not often cultivated (for fairly obvious reasons) *Pepinia* (*Pitcairnia*) *beachiae* is so far known from just a couple of collections from Costa Rica. The pictured plant is a clonotype (a division of the plant from which the holotype specimen was prepared) received from Eloise Beach and cultivated at both the Marie Selby Botanical Gardens in Florida and Gardens by the Bay in Singapore.



*Aechmea nudicaulis* var. *aureorosea* & *Aechmea cylindrata*

Harry E. Luther



Figure 1. *Aechmea nudicaulis* var. *aureorosea*. Photo by Dr. Phil Nelson

*Aechmea nudicaulis* var. *aureorosea* is a name frequently attached to cultivated plants. Many are not this taxon. The pictured plant was collected in 1996 as an epiphyte in the state of Minas Gerais, Brazil and flowered at the Marie Selby Botanical Gardens. One might compare this plant to the 1881 illustration of *Hoplophytum aureo-roseum* presented by Leo Dijkgraaf in the March-April 2011 (pg 71) issue of the *Journal of the Bromeliad Society*

*Aechmea cylindrata* is one of the most common aechmeas both in nature in Southeastern Brazil and in horticulture. Prolific, easy to flower and multiply, its main deficiency is a shortlived inflorescence. The pictured plant is a rather extreme compact form, most have a laxer inflorescence. The photo does clearly illustrate the feature of flowers opening from the middle of the inflorescence and progressing toward the apex and the base. The included photo is of a plant that flowered in cultivation at Marie Selby Botanical Gardens.



Figure 2. *Aechmea cylindrata*. Photo by Dr. Phil Nelson

*Guzmania adscendens*, An Unusual New Species from Northwestern Ecuador

Harry E. Luther & Karen Norton



Figure 1. *Guzmania adscendens*, flowering in cultivation. Photo by Vern Sawyer



Figure 2. *Guzmania adscendens*, branch detail. Photo by Vern Sawyer

The *Guzmania* described below is certainly not a spectacular ornamental, but its erect caulescent habit and nearly complete lack of differentiation between leaves and bracts, stem and peduncle is certainly noteworthy.

*Guzmania adscendens* H. Luther & K. Norton, sp. nov.

A *G. wittmackii* (André) André ex Mez affinis sed caulis elongatus non curtus, sepalis minoribus differt.

TYPE: Ecuador. Carchi, Reserva Etnica Awá, San Marcos, 1000 m, *J. Kent* legit. Flowered in cultivation 14 April 2003, *J. Kent* s.n. (Holotype: SEL).

**Plant** terrestrial and epiphytic, flowering 30 – 45 cm tall, ascending-caulescent. **Leaves** spreading and sometimes recurving, 40 – 65 cm long, thin coriaceous. **Leaf sheaths** elliptic, 6 – 10 x 4 – 6 cm, imbricate along the stem, subdensely brown punctate-lepidote, castaneous toward the base especially abaxially, somewhat reddish striate abaxially. **Leaf blades** ligulate, attenuate then acute, 8 – 16 mm wide, punctate-lepidote, bright green, somewhat paler adaxially. **Peduncle** barely distinguishable from the elongate stem, densely pale brown stellate-lepidote. **Peduncle bracts** barely distinguishable from the leaves. **Inflorescence** 20 x 60 – 70 cm, once-branched with 8 to 10 branches. **Primary bracts** barely distinguishable from the leaves and peduncle bracts, much exceeding the branches; green towards the base, orange, red or pink

distally. **Branches** with a stout 3 – 5 mm stipe, spreading at 45° -- 60° from the axis at anthesis, flattened, 2-flowered. **Floral bracts** lanceolate, falcate, sharply carinate, 45 – 85 mm long, very thin coriaceous, green. **Flowers** subsessile, opening during the day. **Sepals** elliptic, broadly acute, 20 – 25 mm long, conglutinated for ca ½ their length, very thin, the adaxial pair carinate, green. **Corolla** semi-tubular, the apex of the free lobes spreading and recurving, very much zygomorphic, with two petals strongly twisted adaxially. **Petals** ligulate, 65 – 75 mm long, acute, conglutinated for ca 45 mm, naked, pale yellow-green. **Stigma** with spreading, green lobes.

This new species resembles *Guzmania inexpectata* H. Luther, at least superficially, due to its poorly differentiated vegetative and reproductive growth but its much larger size and much longer floral bracts (45 – 85 vs 13 – 17 mm), quickly distinguish it. From the nearly sympatric *G. wittmackii* this species differs by its caulescent (not short and densely rosulate) habit and shorter sepals (20 – 25 vs 40 mm) and less colourful bracts.

We thank the collector, Mr. Jeffrey Kent, for providing the living plant of *G. adscendens* and Vern Sawyer for the photography.



Figure 3. *Guzmania adscendens*, inflorescence overall view. Photo by Vern Sawyer.



## Photos Of Harry Luther

*Photos by Bruce Holst unless otherwise noted*



Figure 1. Gail McDaniel, Harry Luther, Tracy Topjun. Gail and Tracy were Selby staff who worked for Harry in the greenhouses. Circa 2001, photographer unknown.

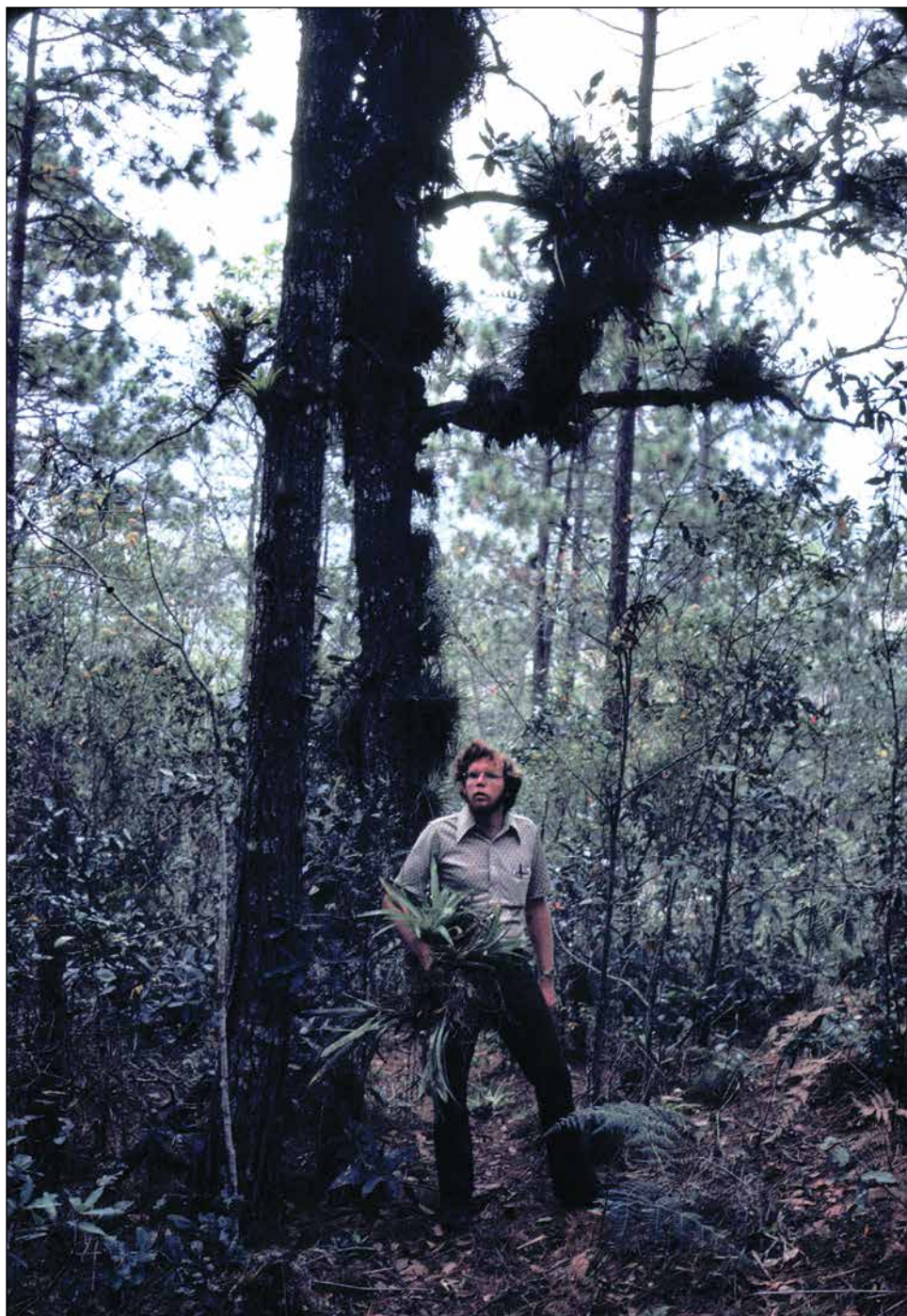


Figure 2. Harry Luther in Honduras, 1974, photographer unknown.



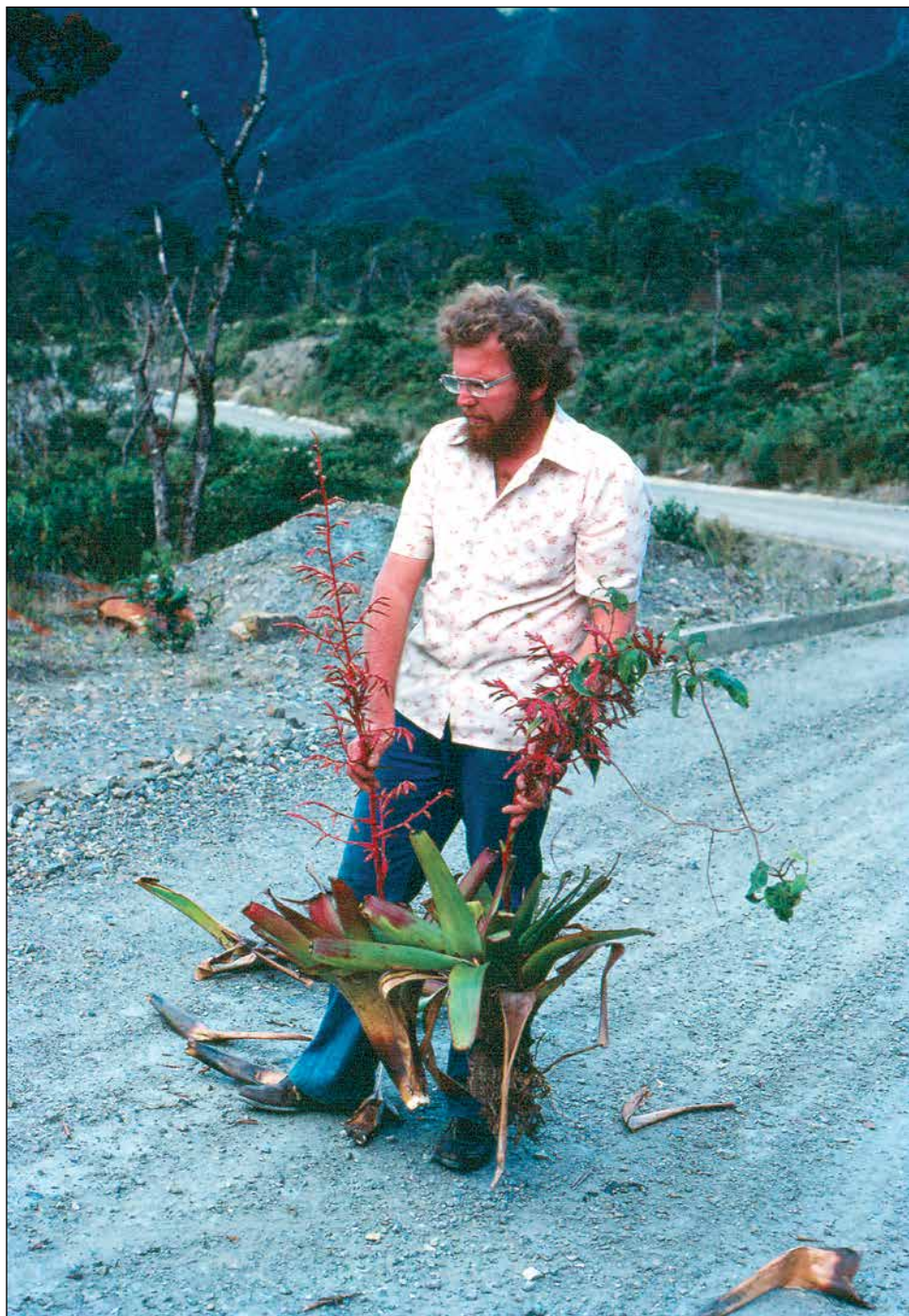


Figure 3. Harry with freshly collected plants in Ecuador, photographer unknown.



Figure 4. Harry Luther pressing plants in the field, Ecuador, photographer unknown.



Figure 5. Harry Luther with intern Warner Orozco-Obanda in 2000.





Figure 6. Harry closely examining *Puya* in Ecuador, photographer unknown.



Figure 7. Harry Luther in the greenhouses at Tropiflora with intern Melissa Faust Bocayuva Cunha in 2006.



Figure 8. Harry Luther with Dechen Lham, an intern from Bhutan, in 2009.





Figure 9. Harry Luther and David Benzing in Greenhouse #4 at Selby Gardens. Photo by Karen Norton in 2006.



Figure 10. A collecting expedition in Minas Gerais, Brazil during 1995 with the bromeliad experts Pedro Nahoum, Harry Luther, David Benzing and Elton Leme, photographer unknown.



Figure 11. Bruce Holst, Hiroyuki Takizawa, Sue Sill, Walter Till, Harry Luther, Renate Ehlers, Pamela Koide, José Manzanares, Francisco Oliva Esteve, FRONT Elton M.C. Leme, Jason Grant. Photo courtesy of Hiroyuki Takizawa, photographer unknown.



Figure 12. Harry receiving Florida Federatino of Garden Clubs Individual Achievement Award in Horticulture in 2004.





Figure 13. Harry sorting through photographs for use in "The Bromeliads of Florida".



Figure 14. Harry visiting Bok Tower Gardens, photo by Karen Norton.



Figure 15. Harry Luther.





Figure 16. Harry Luther, Karen Norton & Nancy Edmondson at Marie Selby Botanical Gardens.



Figure 17. Wally Berg (2nd from left in back), David Benzing and Harry Luther (back row, 3rd and 4th from right), Elton Leme (kneeling 4th from left in front row). 1992. XII Jornado Fluminense de Botânico/ II Simposio Brasileiro de Bromeliaceas. Rio de Janeiro, Brazil. Photographer unknown.

## Harry Edward Luther

*Lynn Hudson*



Figure 1. Harry at the Bloomin Brooms conference in 2009. Photo by Maria Grant.

Cairns society members were so lucky to share a great week with Harry - my dog Treasure hardly left his side - what good taste that girl has!!

Residing in the paradise of northeastern Australia we are isolated from other societies and large bromeliad growers and I decided our members needed a chance to enjoy more outside interaction. After a bit of organizing, 'Bloomin Brooms' became a reality in 2009. We have it on our meeting weekend, open to the public, with Saturday being seminars and Sunday plant sales. We sponsor the speakers from south, both in fares and accommodation and it has been a worthwhile educational weekend.

Following the Australian Conference in Darwin I suggested we invite Harry as Guest Speaker and emailed him in September. He accepted within the hour, electing a preference for the next September, "after the Gardens opens in June-July 2012". The announcement created a lot of interest among our members and the anticipation was almost tangible. Harry arrived for a week and we embarked on a whirlwind tour of our slice of paradise. He enjoyed his time here and was more relaxed than I had ever seen before. He loved the mountains, wildlife and plants of Cairns and the Tablelands.

At 'Bloomin Brooms' members were awestruck as Harry showed us the construction of The Gardens by The Bay. His second presentation was "Epiphytes - an overview" and



covered so many areas and different plants. It was a really happy day with Harry mixing with the delegates and discussing all types of plants. Most saw him just for that day but he became larger than life to almost every attendee as he chatted and laughed with us. They could not believe his depth of plant knowledge. He could not believe we had such a young group - he said many plant groups are 'pick up a granny' median age group!

We also had George Stamatis and Nigel Thomson from Brisbane as speakers. Since age 12 George had been writing (snail mail days) to Harry asking questions about bromeliads, also posting herbarium specimens – he drew the plant, dried it out and pressed it. However they had not met until that day 21 years later, it was a good meeting.

We considered we were very lucky to have Harry Luther here, we had a wonderful week with him and he planned to come back next June. We were the last to hear a Harry presentation. We were shocked and saddened to hear Harry had died suddenly on 17th October - at only 60 years young. He had become so real to each of us.

We will always treasure those memories and Harry will always be a rich part of our lives. It taught me two very big lessons – we just do not know how long we have each other to enjoy, so we should be kind; the Bromeliad Family is huge, try spreading news so each member will be informed.

Lynn Hudson, Secretary Cairns Bromeliad Society, Australia.



Figure 2. Hello Harry. Photo by Bob Hudson.

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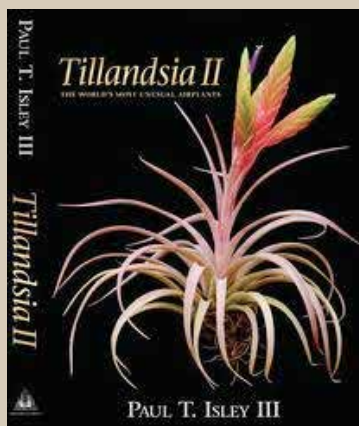
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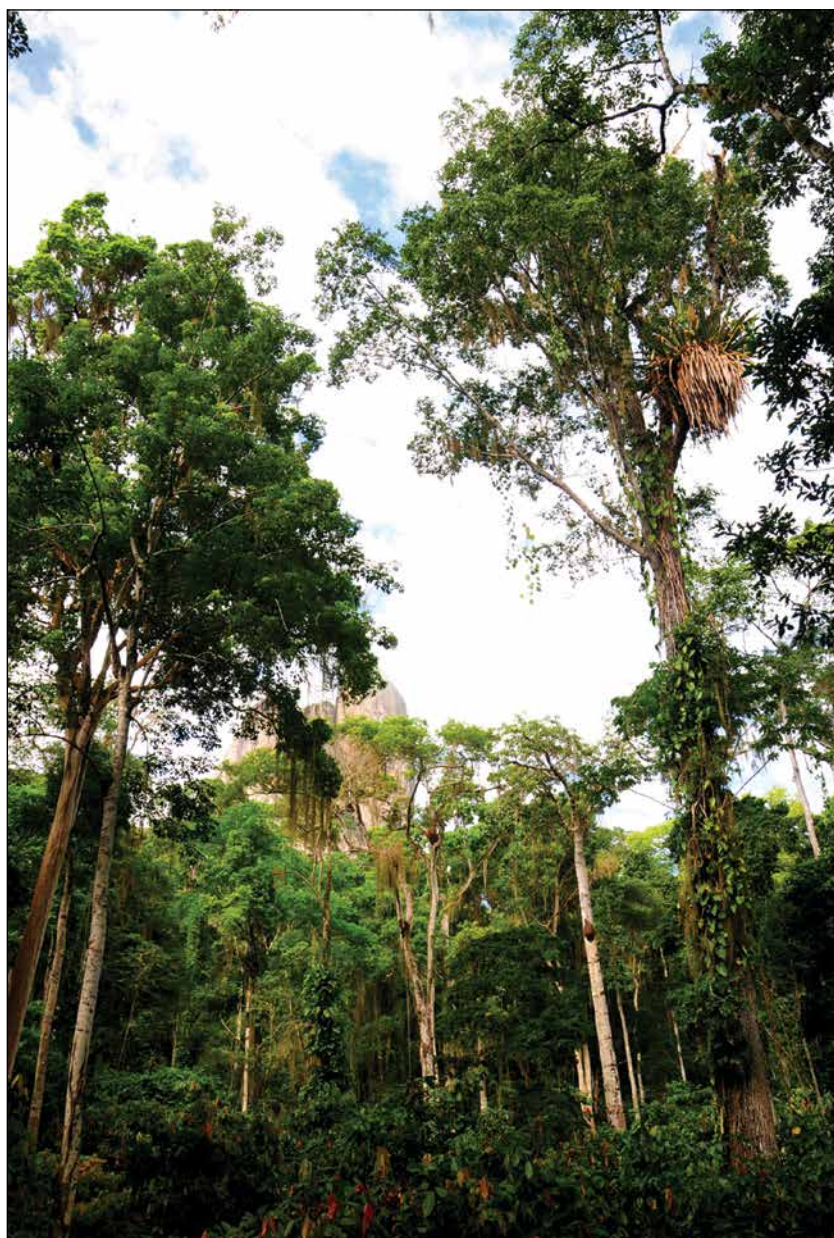
Two New *Hohenbergia* Species From Brazil: A Tribute To Harry LutherElton M.C. Leme<sup>1</sup>

Figure 1. Low elevation hygrophilous Atlantic Forest at the type locality of *Hohenbergia halutheriana*. Photo by Elton M. C. Leme.

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<sup>1</sup>

Herbarium Bradeanum, Rio de Janeiro, Brazil E-mail: leme@tjrj.jus.br



*Hohenbergia* Schult. & Schult. f. has 65 recognized species (Luther, 2012) organized in two subgenera. The subgenus *Hohenbergia* includes 43 species and four varieties, mostly bearing apiculate to caudate ovules and yellow, green to lilac-blue petals. Except for *H. stellata* Schult. & Schult. f., the subgenus *Hohenbergia* is endemic to Brazil, with a major center of distribution in northeastern Brazil, mainly in the state of Bahia. The subgenus *Wittmackiopsis* Mez has the remaining taxa, occurring in the region of the Greater Antilles of the Caribbean, and consists of species with obtuse ovules and white petals.

Despite the great diversity of *Hohenbergia* species concentrated in northeastern Brazil, very few contributions to the better understanding of the genus have been conducted. However, in the past three years, seven new species have been added to *Hohenbergia* (Leme, 2010; Leme et al., 2010; Leme & Kollmann, 2011), revealing the potential for studies on this group, as reinforced by the two new species presented here.

***Hohenbergia halutheriana* Leme, sp. nov**

Species nova a *H. itamarajuensis*, cui proxima, sed laminis foliorum marginibus laxe vel subdense spinosis, spinis longioribus, bracteis floriferis minoribus, viridibus haud rugosis, floribus brevioribus, sepalis minoribus viridibusque, petalis brevioribus appendicibus conspicuis et irregulariter bidentatis differt.

**Type:** Brazil, Bahia, Una, road Una to Santa Luzia, ca. 100 m elev., 7 Dec. 1996, *E. Leme* 3736, *H. E. Luther*, *D. Benzing* & *P. Nahoum*, fl. cult. Jan. 2007. **Holotype:** RB. **Isotype:** CEPEC.

**Plant** epiphytic, flowering ca. 150 cm tall. **Leaves** ca. 16 in number, coriaceous, forming a broad funnellform rosette; **sheaths** broadly elliptic to ovate, 16–20 × 14–15 cm, densely brown lepidote on both sides, dark castaneous; **blades** sublinear, suberect-arcuate, not narrowed at the base, 50–70 × 10–14 cm, green, abaxially subdensely but inconspicuously white lepidote, trichomes sometimes forming inconspicuous crossbands, adaxially laxly and inconspicuously white lepidote, apex acuminate, ending in a darker pungent spine, ca. 1.5 cm long, soon stramineous and decaying, margins subdensely to laxly spinose



Figure 2. The epiphytic habit of *Hohenbergia halutheriana*, forming a giant clump which is difficult to be accessed and collected. Photo by Elton M. C. Leme.



Figure 3. Type specimen of *Hohenbergia halutheriana* that flowered in cultivation. Photo by Elton M. C. Leme.



except for the densely spinose base and apex, spines narrowly triangular to triangular, straight or slightly retrorse-uncinate, dark brown to blackish, 2–6 × 1.5–3.5 mm, 5–15 mm apart. **Peduncle** erect to spreading, stout, ca. 70 cm long, 1.5–2 cm in diameter, red, densely pale castaneous lanate to glabrous; **peduncle bracts** lanceolate, acuminate, 11–12 × 4.5–5 cm, stramineous, papyraceous, finely nerved, inconspicuously white lanate to glabrescent, imbricate, distinctly exceeding the internodes and almost completely covering the peduncle, the basal ones spinose at the apex, the upper ones entire. **Inflorescence** erect to laterally projected, laxly paniculate, broadly pyramideate, 4 times branched at the base, ca. 73 cm long, ca. 50 cm in diameter at the base; rachis stout, straight, 0.5–1.5 cm in diameter, internodes 2.5–6 cm long, sparsely lepidote, with fimbriate trichomes, to glabrous, bright red; **primary bracts** resembling the upper peduncle bracts but smaller, narrowly subtriangular-lanceolate, acuminate, entire, stramineous, glabrescent,

suberect to subspreading with the branches, shorter than the stipes; **primary branches** ca. 20 in number, subspreading; the basal ones 24–30 cm long, stipes 5.5–12 cm long, ca. 1 cm wide at the base, complanate, bright red, glabrous, with 9 to 11 secondary branches laxly disposed toward base and subdensely to densely aggregated at the apex; the middle to upper primary branches 4–20 cm long, stipes 0.5–8 cm long, 0.4–0.7 cm in diameter at the base, bright red, the primary branches at extreme apex of the inflorescence resembling the secondary and tertiary branches, shortly stipitate to subsessile; **secondary bracts** narrowly triangular-lanceolate (the basal ones) to triangular-ovate (the upper ones), acuminate, slightly shorter to exceeding the stipes, stramineous, finely nerved, entire, sparsely white lepidote with fimbriate trichomes, to glabrous, ecarinate; **secondary branches** suberect to spreading; the basal ones 5–7 cm long, distinctly stipitate, stipes 1–3 cm long, 0.3–0.4 cm in diameter, with 2 to 3 tertiary branches aggregated at the apex; the upper secondary branches shortly stipitate to sessile, broadly ellipsoid-ovate (at early anthesis) to subcylindrical (at late anthesis), strobilate, terete, acute, 2–5 × 1.5–2.3 cm, bearing 6 to 15 flowers; **tertiary branches** resembling the upper secondary branches; **floral bracts** suborbicular to subreniform, erect to suberect toward the apex, shorter to equaling the ovary, 7–13 × 8–11 mm, thinly coriaceous, green, glabrous, nerved, entire, strongly convex, ecarinate, apex subacute to obtuse and distinctly mucronate-



Figure 4. Detail of the apical branch of *Hohenbergia halutheriana*. Photo by Elton M. C. Leme.



Figure 5. Close up of the floral fascicles and flower of *Hohenbergia halutheriana*. Photo by Elton M. C. Leme.

spinescent, mucro 1.5–3 mm long, acicular, pungent. **Flowers** 18–19 mm long, sessile, densely and polystichously arranged, suberect, odorless; **sepals** broadly oblong-obovate, strongly asymmetric with the rounded lateral wing distinctly exceeding the apex, ca. 8 × 5 mm, apex with a yellowish apiculus, ca. 0.5 mm long, connate at the base for ca. 1 mm, inconspicuously and sparsely glandulose, glabrous, entire, green, ecarinate; **petals** spatulate, apex obtuse to rounded and emarginate, 12–13 × 4.5 mm, free, purple toward the apex, suberect at anthesis, bearing 2 obovate, irregularly bidentate appendages, ca. 3.5 mm above the base and connected with the lateral callosities. **Stamens** included; **filaments** complanate and dilated toward the apex, the antepetalous ones adnate to the petals for ca. 2.5 mm, the antesepalous ones free; **anthers** oblong-elliptic, 2.5–3 mm long, base obtuse, apex with a bifid apiculus, fixed near the middle; **pollen** broadly ellipsoid, biporate, pore small, exine psillate; **stigma** conduplicate-spiral, broadly ellipsoid, slightly longer than the anthers, white, blades crenulate; **ovary** subglobose, 5–5.5 mm long, ca. 5 mm in diameter at the apex, glabrous or nearly so, green; **placentation** apical, ovules caudate; **epigynous tube** broadly crateriform, 1–1.5 mm long. **Fruits** unknown.

**Paratypes:** Bahia: Itamaraju, Alto Pau Brasil, Fazenda Monte Pescoço, prop. Carlinhos Mascarenhas, 16°59'08.3"S 39°34'38.5"W, 125 m elev., 20 Apr. 2009, *E. Leme* 7751, *L. Kollmann*, *A. P. Fontana* & *C. Esgario* (RB, HB); Una, road Una to Santa Luzia, ca. 100 m elev., 7 Dec. 1996, *E. Leme* 3743, *H. E. Luther*, *D. Benzing* & *P. Nahoum* (HB).

*Hohenbergia halutheriana* is closely related to *H. itamarajuensis* Leme & Baracho, but can be distinguished from it by the leaf blades with margins laxly to subdensely spinose, except for the densely spinose base and apex (vs. very densely spinose), the longer spines (up to 6 mm vs. up to 3 mm long), smaller floral bracts (7-13 x 8-11 mm vs. 20-22 x 17-18 mm), which are green (vs. greenish-yellow to yellow) and even (vs. rugose near the base), shorter flowers (18-19 mm vs. 23-25 mm long), smaller sepals (ca. 8 x 5 mm vs. 11-12 x 7 mm), which are green (vs. yellow), and by the shorter petals (12-13 mm vs. ca. 17 mm long) bearing well developed irregularly bidentate appendages (vs. appendages inconspicuous, attenuate).

This new species is an epiphytic dweller of the low elevation, hygrophilous Atlantic Forest of the south region of the state of Bahia, where it can be found growing on the middle to the higher parts of the trunks of ca. 30 m tall trees. It forms huge clumps easily confused with the giant members of *Aechmea* subgenus *Chevaliera*, being very difficult to be accessed and collected, which may explain why it remained so long without being described.

*Hohenbergia halutheriana* honors one of its collectors, a special friend, the worldwide bromeliad taxonomist Harry E. Luther. I personally met Harry during the 1988 World Bromeliad Conference that took place in Miami and since then our cooperative work on Brazilian Bromeliaceae gained force. His interest on *Hohenbergia* increased substantially after his first expedition to Brazil in November 1992, where he came to attend as speaker at the III Brazilian Bromeliaceae Symposium in Itatiaia National Park, Rio de Janeiro. A few days before the symposium, he saw for the first time, in its Atlantic Forest habitat in the vicinity of Cachoeiras de Macacu, a typical *Hohenbergia augusta* (Vell.) E. Morren in bloom, which was witnessed by David Benzing, Pedro Nahoum and I.

In January 1995, Harry returned to Brazil, this time to participate in the IV Brazilian



Figure 6. Detail of the inner part of the left rosette of *Hohenbergia halutheriana*. Photo by Elton M. C. Leme.



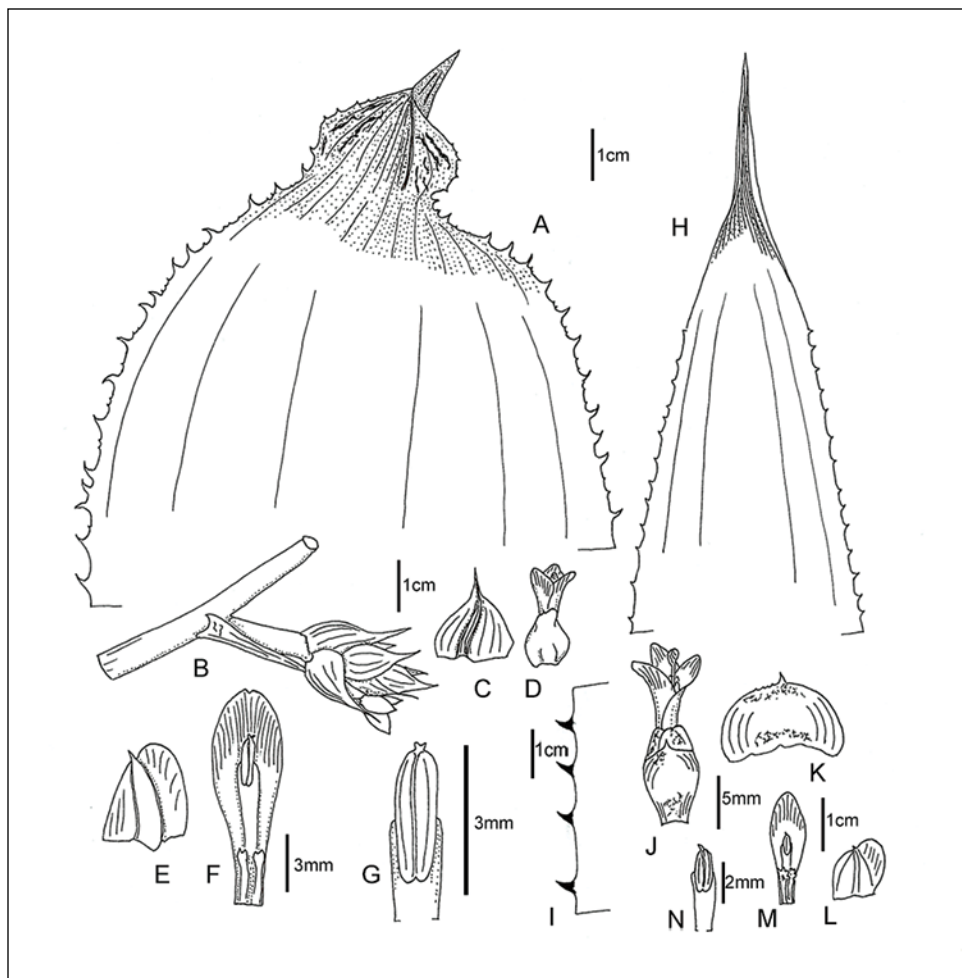


Figure 7. (A-G) *Hohenbergia halutheriana* (Leme 3736 et al.): A) apex of the leaf blade; B) floral fascicle; C) floral bract; D) flower; E) sepal; F) petal; G) anther. (H-N) *Hohenbergia viridorubra* (Leme 6087): H) apex of the leaf blade; I) marginal spines of the basal portion of the leaf blade; J) floral bract and flower; K) floral bract; L) sepal; M) petal; N) anther. Drawing by Elton M. C. Leme.

Bromeliaceae Symposium, held in Ribeirão Pedro, São Paulo. After the symposium, Luther joined, together with David Benzing, Pedro Nahoum, Walter Till and I, on a seven-day expedition to the Campos Rupestres of Minas Gerais, covering the south-central region of Espírito Santo and the north of Rio de Janeiro State, but few *Hohenbergia* species were seen that time. However, in the first days of December 1996, Harry came back to Brazil, and again with Benzing, Nahoum and I, spent 10 adventurous days searching for bromeliads in Minas Gerais, Bahia, Espírito Santo and Rio de Janeiro, covering different ecosystems, like Campos Rupestres, Caatinga, Atlantic Forest, and Restinga. In Bahia, he experienced the richness of the genus *Hohenbergia*, where many unusual species were seen and some new ones discovered, like *H. undulatifolia* Leme & H. Luther and *H. lemei* H. Luther & K.F. Norton, both from the Campos Rupestres vegetation, plus *H. flava* Leme & Paula and the new species described above. *Hohenbergia halutheriana*, collected by Harry's

hands in the heart of the Atlantic Forest of Bahia, is, 17 years later, a genuine honor to this great botanist.

*Hohenbergia viridorubra* Leme, sp. nov.

Species nova a *H. pabstii*, cui affinis, inflorescentia duplo longiore, fasciculis longioribus, bracteis floriferis subreniformibus et sepalis brevioribus differt.

Type: Brazil, Bahia, Santa Teresinha, Pedra Branca, S. Linhares s.n., Oct. 2003, fl. cult. Febr. 2013, E. Leme 6087. **Holotype**: RB. **Isotype**: HB.

**Plant** terrestrial, flowering ca. 180 cm tall. **Leaves** ca. 30 in number, strongly coriaceous, forming a broadly funelform rosette; **sheaths** ovate-elliptic,  $22 \times 13\text{--}15$  cm, densely brown lepidote on both sides, dark castaneous, spinose at the distal end; **blades** linear, suberect-arcuate,  $80\text{--}100 \times 7\text{--}8.5$  cm, not narrowed but strongly canaliculate toward the base, densely and inconspicuously white lepidote on both sides but mainly abaxially, with trichomes not obscuring the color of the blades, green to dark red mainly toward the apex, apex acuminate and terminating in a ca. 3 cm long pungent point, margins subdensely to laxly and coarsely spinose; spines narrowly triangular, blackish, prevailing antrorse, the basal ones  $2\text{--}3 \times 1\text{--}1.5$  mm,  $7\text{--}18$  mm apart, the upper ones  $1\text{--}1.5 \times 1$  mm,  $3\text{--}7$  mm apart. **Peduncle** erect, stout, ca. 50 cm long,  $1.5\text{--}1.7$  cm in diameter, reddish, densely white lanate, becoming glabrous with age; **peduncle bracts** narrowly lanceolate, acuminate and ending in a pungent spine, erect,  $13\text{--}20 \times 3\text{--}3.5$  cm, exceeding the internodes, stramineous, strongly nerved, white lanate at the base and glabrous



Figure 8. Details of the flower fascicles of the type specimen of *Hohenbergia itamarajuensis* (Leme 805 et al.) the closer relative of *H. halutheriana*. Photo by Elton M. C. Leme.



Figure 9. Habit of *Hohenbergia viridorubra* which flowered in cultivation. Photo by Elton M. C. Leme.





Figure 10. Details of the middle portion of the inflorescence of *Hohenbergia viridorubra*. Photo by Elton M. C. Leme.



Figure 11. Close up of the floral fascicle and flower of *Hohenbergia viridorubra*. Photo by Elton M. C. Leme.

toward the apex, spinulose to entire. **Inflorescence** subpyramidal, 4 times branched, ca. 110 cm long, 50–60 cm in diameter at the base, erect; rachis 0.5–1.5 cm in diameter, straight, red, sparsely white lanate but soon glabrous; **primary bracts** resembling the upper peduncle bracts but decreasing in size, spreading to reflexed, slightly exceeding (basal ones) to shorter (upper ones) than the stipes, soon decaying; **primary branches** ca. 27 in number, suberect-ascending; the basal to middle ones 33–50 cm long, 7–9 cm apart, distinctly stipitate, stipes 8–10 × 0.9–1.5 cm, complanate and dilated toward the base, red, sparsely white sublanate but soon glabrous, bearing 13 to 15 secondary fascicles; the apical primary branches resembling the secondary and tertiary branches, 3–20 cm long, 1–4 cm apart; **secondary bracts** narrowly subtriangular-lanceolate, acuminate-caudate, soon drying, 1–2 × 0.5–0.7 cm, shorter to exceeding the stipes, papyraceous, distinctly nerved, ecarinate, glabrescent, suberect with the secondary branches; **secondary branches** the basal to middle ones 4–15 cm long, 3–5 cm apart, distinctly to shortly stipitate, stipes 1–5 × 0.3–0.4 cm, slightly complanate to terete, red, soon glabrous, bearing 3 to 6 sessile tertiary branches more or less densely aggregated at the distal end of the secondary branches; the apical secondary branches fasciculate, sessile to subsessile, 2.5–4 cm long, 1–2 cm apart, resembling the tertiary branches; **tertiary bracts** subtriangular, acute and distinctly apiculate, glabrous or nearly so, whitish-green, thin in texture, distinctly nerved, entire, distinctly shorter than the fascicles; **tertiary branches** fasciculate, strobilate, ovoid to subcylindric, sessile, 25–30 × 10 mm, with 8 to 15 flowers densely arranged, bearing at the base a single, shorter strobilate fascicle with 5 to 7 flowers; **floral bracts** subreniform, nearly erect with the flowers, distinctly shorter than the sepals, 8 × 11–12 mm, green, sparsely pale brown lepidote, trichomes fimbriate, to glabrescent, nerved, ecarinate, strongly

convex, entire to remotely denticulate at the apex, thinly coriaceous, apex broadly acute to obtuse and apiculate, apiculus 1–1.7 mm long, yellowish. **Flowers** 16–17 mm long, sessile, densely and polystichously arranged, nearly erect, odorless; **sepals** distinctly asymmetric with the membranaceous lateral wing exceeding the apex, ca.  $5.5 \times 4.5$  mm, including the ca. 0.5 mm long apical mucro, subfree, inconspicuous lepidote to glabrous, greenish except for the hyaline lateral wing, the lateral sepals obtusely carinate; **petals** spatulate, apex narrowly obtuse-emarginate, ca.  $11 \times 3$  mm, free, whitish-cream, bearing at the base 2 sublinear, irregularly denticulate appendages, ca. 4 mm above the base, without any callosities. **Stamens** included; **filaments** complanate and dilated toward the apex, the antepetalous ones adnate to the petals for ca. 3 mm, the antesepalous ones free; **anthers** elliptic, base shortly bilobed, apex apiculate, dorsifixed near the middle; **pollen** in tetrads, porate, exine psillate; **stigma** conduplicate-spiral, capitate, distinctly exceeding the anthers, whitish-cream, margins long lacinate; **ovary** broadly obovoid, subtrigonal, ca. 4 mm long, ca. 4 mm in diameter at the apex, greenish-white, glabrous; **placentation** apical; ovules caudate; **epigynous tube** ca. 0.5 mm long. Fruits unknown.

This new species is closely related to *H. pabstii* L.B. Sm. & R.W. Read, differing from it by its much larger size (ca. 180 cm vs. ca. 120 cm tall), the twice longer inflorescence (ca. 110 cm vs. 55–60 cm long), with longer floral fascicles (25–30 mm vs. 15–20 mm long), the subreniform floral bracts (vs. broadly ovate), as well as by the shorter sepals (ca. 5.5 mm vs. 7–8 mm long).

While *H. pabstii* is probably an epiphytic species known from the coastal hygrophilous Atlantic Forest, in the county of Santa Cruz da Vitória, Bahia, *H. viridorubra* is a terrestrial species from the comparatively drier transitional vegetation of deciduous Atlantic Forest, in the county of Santa Teresinha, Bahia, where it was originally collected by bromeliad grower Sandra Linhares.

The epithet of this new species is a reference to color contrast of the green floral bracts and sepals with the red axis of the inflorescence and the peduncles and rachis of the branches.

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## Bromeliad Species Named After Harry Luther

*Theresa M. Bert, Michael Andreas & Walter Till*



Figure 1. *Cryptanthus lutherianus*. Full-plant photo appeared in the *Cryptanthus Society Journal* 15(3-4): 101.

## Introduction

Harry Luther was active in the naming of bromeliads. He named or contributed to the naming of 196 of the 3352 (6%) bromeliad taxa recognized today (Luther 2012). Harry contributed particularly to the variety of *Greigia* and *Guzmania* species currently recognized; naming, respectively, 28% of the 36 recognized taxa in *Greigia* and 27% of the 211 of the taxa in *Guzmania*. He also named 26% of the 57 pitcairnioids currently recognized by some bromeliad experts as *Pepinia* species. However, despite this significant contribution to recognized bromeliad diversity, only seven species named for Harry are listed in his own compilation of bromeliad binomials (Luther 2012). We, here, list eight species named after Harry. As is perhaps appropriate, each of those species is special in some way--in having unusual or spectacular morphological attributes; living in single, restricted, special locations; or being controversial in its very naming.

## The Species

***Cryptanthus lutherianus*** I. Ramírez 1998 (Figure 1). This morphologically unusual Brazilian species has the long, slender leaves reminiscent of *C. incrassatus* and *C. maritimus*. *Cryptanthus lutherianus* is cultivated in Florida (Whitman 1996). According to Ramírez (1999), it grows in humid coastal grasslands (“capoeiros”) at about 100 m (324 ft) elevation in the Guarapari municipality of Espírito Santo state, Brazil.

***Pitcairnia harrylutheri*** (Luther) D.C. Taylor and H. Robinson 1999. Harry Luther’s continued recognition of the genus *Pepinia* has caused considerable confusion about this species versus *Pepinia fulgens*. The problem stems from the controversy about the recognition of *Pepinia* as a genus separate from *Pitcairnia*, which was first proposed by Varadarajan and Gilmartin (1988) and later rejected by Taylor and Robinson (1999), who changed *Pepinia fulgens* to *Pitcairnia harrylutheri*. *Pepinia fulgens* was first named by Harry (Luther 1991), so the renaming of that species after Harry was appropriate. Although Harry continued to recognize *Pepinia* as a genus (e.g., Luther 2000, 2007, 2012), other authors have not (e.g., Gröger and Huber 2007; Versieux et al. 2010); and molecular genetic evidence indicates that *Pepinia* and *Pitcairnia* are not phylogenetically differentiated (Givnish et al. 2007, figures 1 and 2; *Pepinia corallina* is placed among the pitcairnias). Givnish et al. (2012) did not mention *Pepinia* and recognized the pepinias he used in that study (*Pep. corallina*, *Pep. holstii*) as pitcairnias (*Pit. corallina*, *Pit. holstii*). We recognize that, at this time, the evidence suggests that *Pitcairnia* and *Pepinia* should be resynonymized and, therefore, recognize *Pepinia fulgens* as *Pitcairnia harrylutheri*.

Only three populations of *Pitcairnia harrylutheri* are known. All are in Morona-Santiago province in Ecuador. This rather large (approximately 3-4 ft (1 - 1.3 m) terrestrial species inhabits tropical, moist, low-montane forest (1,100 - 1,300 m, or approximately 3,600 - 4,200 ft). Its beautiful inflorescence, seeking light and open space (probably to attract pollinators), can extend upward, curve outward from the plant, or crawl along the ground (Figure 2). This species is threatened by deforestation and is red-listed as a species of conservation concern by the International Union for Conservation of Nature and Natural Resources (IUCN). It is not known to occur in any protected areas but is cultivated.

***Pitcairnia lutheri*** Manzanares & W. Till 2005 (Figure 2). This beautiful, tall (about 150 cm, or nearly 5 ft), terrestrial species inhabits a limited area (only one population,



Figure 2. *Pitcairnia lutheri*. Photo by Peter Tristram



occupies an area < 20 km<sup>2</sup>, or 7.7 mi<sup>2</sup>) in the low montane rainforest (about 1,550 - 2,200 m, or 5,000 - 7,100 ft) of the Ecuadorian coastal region (Pinchincha Province). On a long scape that extends above the leaf mass, the plant has a large (33-cm, or 13-in) inflorescence with 100 - 150 stunningly red, tightly packed flowers that protrude at an angle from the scape, giving the inflorescence a bottle-brush shape. This species is also cultivated.

***Puya lutheri*** W. Till 1992 (Figure 3). This rather small (about 1 m, or 3 ft, tall), Peruvian *Puya* is known to live in Huascarán National Park (Yungay Province) near a rivulet that runs between two glacial moraines in a high-altitude (3,930 - 4,500 m, or 12,700 - 14,600 ft), dry grassland also inhabited by sparsely distributed shrubs (*Polylepis* sp.). The inflorescence is club-like and dense, with pale blue flowers.

Little else is known about this remotely situated, high-altitude species.



Figure 3. *Puya lutheri*, digitized from slide supplied by Walter Till

***Vriesea harrylutheri*** Leme & G.K. Brown 2004 (Figure 4). This grayish, Tillandsia-like, stiff-leaved lithophytic species is one of the many that inhabit the Brazilian Atlantic coastal region and one of the few that are endemic to the gigantic inselbergs distinctive to the southeastern part of that region. *Vriesea harrylutheri* occurs at a single locality in Serra County, Espírito Santo state, and forms dense aggregations on the vertical, bare surfaces of inselbergs at about 200 m (650 ft) elevation, where the plants are exposed to the full force of sun and weather. Its rather pinnate inflorescence bears pale yellow-green flowers that bloom at night and smell somewhat like garlic. This species has been in cultivation for approximately 20 years.

***Vriesea lutheri*** Manzanares & W. Till 2000 (Figure 5). During an expedition to southern Ecuador in April 1997, while crossing the Nudo de Sabanillas mountains in Podocarpus National Park (Zamora-Chinchi Province), several prominent bromeliad enthusiasts found this small, grayish, epiphytic, stiff-leaved *Vriesea* blooming in dense, humid Andean forest at about 2,700 m (8,750 ft) elevation. The rather pendulous inflorescence



Figure 4. *Vriesea harrylutheri*. Photo by Hirouki Takizawa

is magnificently large for the size of the plant. It has prominent orange-red primary bracts and green flowers. This species is known only from the collection site and type specimen and is therefore red-listed as a species of conservation concern by the IUCN.

*Vriesea lutheriana* J.R. Grant 1992 (Figure 6). This colorful Costa Rican epiphyte inhabits mid-level highland forests (1,200 m, or about 3,900 ft). It has soft, deep-green leaves and a very long, distinctive (for the region) tripinnate inflorescence composed of brilliant orange floral bracts and pale bluish-gray flowers. This species is also cultivated.

Aside from its vibrant inflorescence, the most interesting feature known about this species is its taxonomic affiliation. It is morphologically more closely related to several species from the Guayana Highlands and Andean regions of northern South America

than to other vrieseas inhabiting Central America. This suggests that the ancestor of *V. lutheriana* originated in northern South America rather than more locally in Central America. *Vriesea* seeds are wind-dispersed. Perhaps some seeds from a northern South American *Vriesea* species blew into Costa Rica during a tropical storm that swept westward over the southern Caribbean; or, a population may have become isolated from other populations of the ancestral species. In either situation, over generations, adaptations to local environmental conditions may have resulted in the evolution of the ancestral form into *V. lutheriana*.

*Werauhia lutheri* S. Pierce & J.E. Aranda 2000 (Figure 7). The authors who named this species found it in Panama, in the elfin cloud forests (tree height about 8 - 15 m, or 26 - 49 ft) of Mount Jefe, Chagres National Park (Panama Province), and in El Copé National Park (Veraguas Province). It was also collected by Harry Luther in Fortuna (Chiriquí Province). Although the general location of *W. lutheri* is cloud forest with high rainfall (up to 4 m, or 13 ft, per year), within those forests *W. lutheri* lives in more open areas that are sometimes



Figure 5. *Vriesea lutheri*. Photo by Manfred Zingler





Figure 6. *Vriesea lutheriana*. Photo by Peter Tristram.



Figure 7. *Werauhia lutheri*. Photo by Peter Tristram.

windy and have exposed conditions. It grows just above the dense understory, in the upper parts of trees.

This vase-shaped plant is about 60 cm (2 ft) tall when fully grown and up to 120 cm (4 ft) when in flower. It blooms in February, producing pale yellow flowers that open in early evening. The underside, or both sides, of the leaves are covered with a waxy coating that may function to repel water, thereby aiding gas exchange for photosynthesis in the wet habitats that the species occupies. The coatings may also protect the plant from over-exposure to ultraviolet radiation (Krause et al. 2003).

### Comments

The limited distribution of each of these species warrants their inclusion in one of the IUCN's listings as species that must be protected. Most of these species are mid- to high-altitude or have other environmental requirements that make them difficult to grow in cultivation, thus enhancing the importance of maintaining these species in their natural environments and protecting the habitats in which they are found. Perhaps fortunately, most of these species occur in remote or protected areas, increasing the likelihood that they will persist over prolonged time periods. Nevertheless, all of these species should be specifically protected so that their ecological importance and full distribution can be evaluated.

Similarly to the recognition awarded to book authors and artists after their deaths, perhaps Harry's significant contributions to the bromeliad world will be recognized in part by the naming of other new species after him in the future. One thing is certain; the experts who wish to describe new bromeliad species in the future will miss his expertise and collaboration. Similarly to the bromeliads that he loved, Harry was truly unique, valuable, and interesting.

### Acknowledgements

Figure 1 appeared in the *Cryptanthus Society Journal* 15(3-4): 101 and is in the Florida Council of Bromeliad Society website (<http://fcbs.org/pictures.htm>). Figure 3 was contributed by José Manzanares. We also thank Drs. David Benzing, Greg Brown and José Manzanares for reviewing the manuscript.

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## About Harry, Bromeliads & His Deep Influence On My Academic Career

Ivón M. Ramírez Morillo, Ph D.<sup>1</sup>

Many phrases and moments came into my mind when I think of Harry. He really was not a man of words and it was really difficult to make him talk about something else besides, of course, bromeliads.

I met Harry on December 1990 when I was invited by Dr. John Atwood for a short stay at Selby Gardens. At that time, I was a graduate student at the University of Missouri-St. Louis and the Missouri Botanical Gardens and I was working with *Neoregelia* subgenus *Hylaeicum* for my master's degree. Perhaps surprisingly, it was not Harry but John Atwood, an orchid specialist, who invited me, my husband, and our daughter Debbie, to stay at the intern quarters at Selby Gardens. I had never met Harry before that visit and was unable to see him during daytime hours the day I arrived there. The night of my very first day at Selby Gardens, about midnight, my family and I decided to take a walk around the garden grounds to enjoy the vegetation and the warm weather, because it was winter and snowy in St Louis and we wanted to feel like home (we are Venezuelans) and enjoy the tropical environment at Selby. Then, out of the blue, a giant shadow approached us and there he was: the magnificent Harry, whose first words were (in that particularly deep voice of his) "Good Evening!".

As scary as this introduction may sound, I never felt intimidated by him, he was a sweet, gentle, and kind person. We spent endless hours talking about bromeliads during that and subsequent visits to Selby Gardens during my PhD program. Harry had many ideas about classification of bromeliads but he was reluctant to publish them because he did not have a PhD, and thought no one in the scientific community would take his ideas seriously. He was very wrong about that! All the bromeliad community and many scientists who appreciated and valued knowledge recognized his experience of more than 30 years working with, growing, and collecting bromeliads. He was exceptional since he knew bromeliads equally well as herbarium specimens, as cultivated plants, and in the field. Because of his extensive knowledge about the biology of the species and his great contribution to the taxonomy of bromeliads, the bromeliad community has dedicated several species to him, among which is *Cryptanthus lutherianus* I. Ramirez, as a tribute to someone who gave so much of his life to the knowledge of the diversity and cultivation of bromeliads.

In these modern times, it is important to follow the example of Harry when we conduct phylogenetic studies, when it is of utmost importance to know the species, see the natural populations in the field, and cultivate them in order to correctly interpret the results stemming from phylogenetic analyzes based on DNA sequences, interpretations that would otherwise be incomplete and would lack biological sense when trying to reconstruct the evolutionary scenarios of a particular group. Seeing this, I think of Harry: a person with a deep knowledge of species limits, and a profound understanding of their relationships.

Harry: I will miss your support, your input and your kindness. When I think of you, I feel fortunate to have met you and I am very happy to have had the chance to publish a few papers together and, in doing so, build an enriching friendship with one of the greatest bromeliad experts ever!!!

<sup>1</sup>

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## Remembering Harry Luther

*Herb Plover*

I first met and talked to Harry Luther sometime in 1977 when he was being considered as the director of the Mulford Foster Identification Center being formed at Marie Selby Botanical Gardens. I had been asked what I thought of such appointment and I wisely passed that judgment on to Lyman Smith. I called Lyman and asked if he knew Harry and if he thought Harry had the qualifications for the job. Lyman told me that Harry had come up to the Smithsonian several times and that although Harry did not have a degree in taxonomy he knew his stuff and would make a fine director. When BIC became official in 1978, Harry became its Director; two years later he also became Curator of Living Collections at Selby.

Despite his quiet, reticent and withdrawn demeanor, I developed a continually deepening friendship with Harry over 35 years, because we could talk and correspond about bromeliads and identification. In the beginning I kept him busy, constantly sending him leaves and blooms for identification at \$10 a shot (the money went to BIC). This always led to his writing to me and to further correspondence. Despite his many responsibilities, Harry could always be relied on to give you a speedy response. Harry read *Bromeliana* and often sent me comments and, especially, corrections of inaccuracies.

His death is a grave loss to the bromeliad world. Simply put, with his vast knowledge, encyclopedic memory and devotion to bromeliads, Harry Luther was internationally recognized as the primary go-to expert on bromeliad identification. His tireless 24-7 work over 31 years left a huge, remarkable legacy:

Harry was responsible for the largest living collection of bromeliads in the world at Selby Gardens, for taxonomic files and specimens for more than 3,000 species and more than 2,000 photographic slides of living material. He described more than 100 new species of bromeliads, produced the authoritative biannual *Alphabetical List of Bromeliad Binomials*, gave countless educational talks and wrote numerous pamphlets and articles for the BSI Journal, Selbyana and elsewhere.

I deeply mourn his passing, as do countless other friends who were fortunate to know him.



Figure 1. Harry E. Luther. Photo courtesy of Bruce Holst.



## Memories Of Harry E. Luther & Dedication Of Two New Cultivars

*Hiroyuki Tazikawa MD, Ph. D*



Figure 1. Business card received from Harry Luther during our first meeting at the 1996 World Bromeliad Conference in Orlando. Items in addition to the business card are discussed further in the article. Photo by Hiroyuki Tazikawa.

On my desk there is a framed photo that has been there for 16 years.

It was 1996 when I first met Harry at the World Bromeliad Conference in Orlando, Florida - Orlandiana '96. My passion for bromeliads brought me to the conference and at the time I believe I was the first Japanese national to attend.

At the time (and still today) Harry was really a “Super Star” to me.

I believe that anyone who studies bromeliads would understand my feelings, and I clearly remember the moment when I first met him. I was so excited to get his business card, but did not understand that I was opening the door to a new world. Many years later I have realized just how much that first meeting meant in my life. I still have that card and treasure it today (Figure 1).

By then I had already known Dennis Cathcart of Tropiflora for some time, as we had become very good friends by facsimile (fax) letter exchanges (no email in those days). Harry was Dennis' true friend, and so each time when I would visit Dennis, we would spend some time with Harry too. Dennis' wife, Linda, cared for Harry very much and she and Dennis treated Harry as their true family. They treated me like family too.

Dennis and I made many field trips together, and after our return from each trip to a Latin American country, we would meet with Harry to discuss our collections. I was

always so impressed by his incredibly wide, deep and really detailed knowledge. Truly he was a 'Living Encyclopedia'. They say that Harry had a photographic memory; I really have to agree with this.

In 1998, Japanese bromeliad pioneer, Hideo Shimizu and I, published the 'New Tillandsia Handbook'. In those days we still did not have email, so I visited Harry at the Marie Selby Botanical Garden to seek his advice. He was always very kind with sharp and clear comments.

When I look back over my bromeliad history, many beautiful memories with Harry come to mind. I am Japanese but my bromeliad career started in Florida, I feel, so Florida is like my second birth place. As Dennis says, Harry valued his friendship with me and he helped me in every way. I published my first new discovery *Tillandsia X marceloi* in 1999. Harry helped me so kindly in preparation of the plant description. Since then, in my publication of other new *Tillandsia* finds, Harry always willingly gave me advice to aid in my descriptions. Without him, it would have been very difficult for me to do this work, and it was really a great honor to work with him. His description of *Tillandsia takizawae*, with Renate Ehlers, is one of my treasured memories (Figure 2).

It is a huge pity that Harry had more than tough times during his last days at Selby, but the important thing to remember, at least before Selby changed direction, was that he really loved his work at Selby Gardens. They say he described more than 200 new bromeliad species and that his scientific publications number many more. He took pride in his work. Everyone who loves bromeliads respected him. It was really sad that Selby

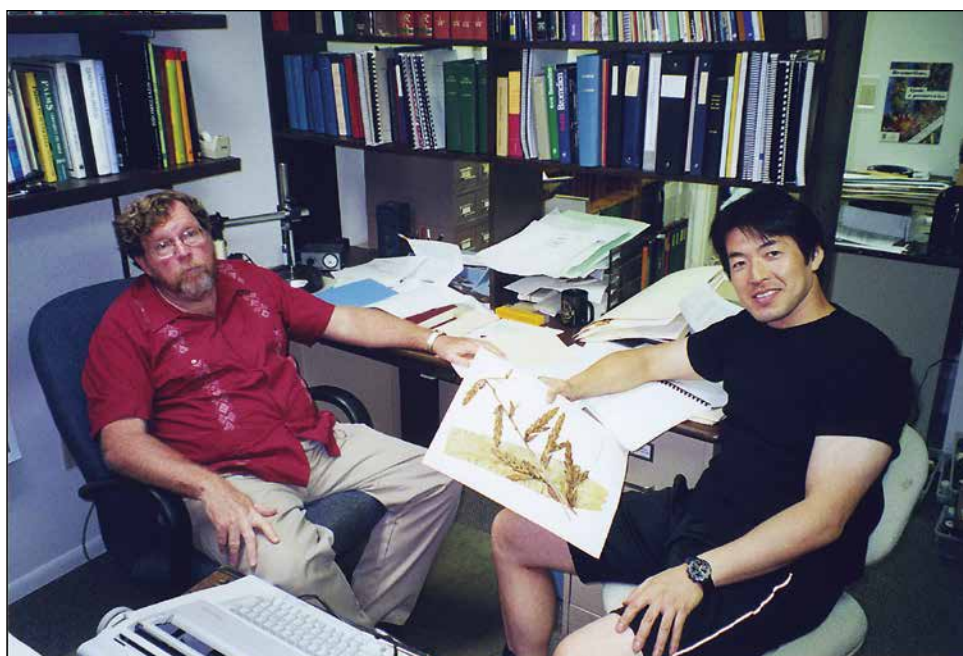


Figure 2. Harry Luther and I talk about bromeliads in his office at Selby just before publication of *Tillandsia takizawae* Luther & Ehlers. Photo by Dennis Cathcart.



Figure 3. "The Three Explorers", Dennis Cathcart, Hiroyuki Takizawa and Harry Luther, after returning from a collecting trip to Ecuador in 1997. Photo by Linda Cathcart.



Figure 4. A collection of pups from the original variegated plants growing in sterile conditions. Photo by Hiroyuki Takizawa.



changed directions.

When Harry moved to Singapore, I was convinced the center of bromeliad research would move from Florida to Singapore with him: But Harry is gone and will never come back, so I will treasure our good memories for the rest of my life.

My antique photo frame has my favorite photograph; Dennis, Harry and I \_ pictured after our trip to Ecuador in 1997. Linda called it "The Three Explorers" (Figure 3). We were so young. Very beautiful memories.

When we are healthy or young, we don't feel there is an 'end'. When Harry was there I did not think about his passing away because he was only 60 years old.

In 2011, here in Japan, we experienced a serious earthquake, tsunami and nuclear plant disaster. Japan was injured deeply. Even in Tokyo, my home lost electricity and our water had radioactive contamination for some period of time. Losing electricity day after day was really sad. From the experience, I learned daily life is made up from many miracles. Before, I never felt that having electricity was a miracle or enjoying a hobby was a miracle.

The truth is, daily, that life is really a miracle. Of course, everyone knows Harry's existence was more than miracle. Needless to say, his knowledge was way beyond normal range and his passing away is a huge loss to the bromeliad world. Nobody can replace Harry. Sometimes we notice what is a miracle only when we lose it. Our days with him were truly a miracle.

I like to discover new species in the wild, but also I like to create new plants by hybridizing. My favorite bromeliads are in the genus *Tillandsia*.

Most *Tillandsia* species and hybrids are very slow growing plants, but I've been growing *Tillandsia* seedlings in sterile media during the last 13 years and find this makes *tillandsias* grow fast.

In my sterilized cultures, I've produced only two, but two perfectly variegated *Tillandsia* cultivars. Both were from *Tillandsia dyeriana* x *T. cacticola* seeds sown Nov 14, 2001. In the beginning I found one unusual leaf on a 1 inch high seedling. To my surprise it was partially variegated.

In my sterilized media, *Tillandsia* seedlings produce pups very actively, even at a small size. I really hoped my partially variegated seedling would pup from the variegated side, and it did. I got one perfectly variegated pup. This precious plant became a mother plant and I got many, many perfectly variegated pups from that. I was so happy. The original, partially variegated seedling also produced another pup with the reverse variegation (Figure 4).

It was not so difficult to remove these plants from the sterile growing boxes and acclimate them to my greenhouse conditions .... but to keep them in good condition in the greenhouse was more than difficult. *Tillandsia dyeriana* rots easily sometimes, and *Tillandsia cacticola* prefers dry and cool conditions. It seems my hybrid took these difficult characteristics from both parents. But in spite of this, I got my plant to bloom in my greenhouse. It was a very beautiful inflorescence: about 50 cm high, a mixture of delicate purple from the *T. cacticola* and slight orange from *T. dyeriana*. I have never seen such a



Figure 5. *Tillandsia* 'Kieseki', a variegated cultivar of *Tillandsia dyeriana* x *T. cacticola* with medial variegation. Photo by Hiroyuki Tazikawa.

color in a *Tillandsia*.

However, since then, I have not bloomed it again for many years. I lost many by rotting, and finally I asked Harry for advice. Harry commented, “Your *Tillandsia* is certainly a hybrid of extremes; cool dry X warm wet. I would try to grow this with lots of airflow and spray with something like Alliette or a similar fungicide. Interesting plant.” ..... That became his last email message to me. Really a pity, I wanted to discuss more about many, many plants with him. I wanted to learn more from him.

These two cultivars are the first and the last variegated plants for me, so far. One has central variegation and the other has marginal variegation. The variegation is very stable and every pup has clear variegation. I dedicate both of my first variegated hybrids to Harry E. Luther and am registering the cultivar with central variegation as ‘Kiseki’ (Figure 5) and the cultivar with marginal variegation as ‘Miracle’ (Figure 6). ‘Kiseki’ means ‘miracle’ in Japanese.

Harry was a really beautiful person with a beautiful mind. We all miss him so much.



Figure 6. *Tillandsia* ‘Miracle’, an albomarginate cultivar of *Tillandsia dyeriana* x *T. cacticola*. Photo by Hiroyuki Tazikawa.



## Photos Of A Few Species Described By Harry E. Luther

*Peter Tristram*



Figure 1. *Guzmania jaramilloi*



Figure 2. *Guzmania teucamae*



Figure 3. *Vriesea ospinae* v. *gruberi*



Figure 4. *Tillandsia raakii*



Figure 5. *Guzmania musaica* v. *rosea*





Figure 6. *Tillandsia subteres*

# A New Short-leaved Variety Of *Werauhia insignis*

Dr. Jason Grant<sup>1</sup>



Figure 1. *Werauhia insignis* var. *brevifolia* in the wild at Fortuna Pass, Panama. Photo Peter Tristram.

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A short-leaved variety of *Werauhia insignis* has been observed for many years in Panama. It was also recognized by Harry Luther as novel who gave it the provisional name 'brevifolia'. Here, the taxon is formally described as *Werauhia insignis* var. *brevifolia* H. Luther ex J.R. Grant, in this tribute issue to Harry Luther.

Many species of bromeliads have a considerable amount of morphological variation in natural populations. Variation is often seen in the shape and coloration of flowers and inflorescences, and as well as in leaves of plants of various ages even when they are not in flower. *Werauhia insignis* was previously known as *Tillandsia insignis*, but both DNA and morphological data indicate that it belongs to the genus *Werauhia* (Barfuss et al. 2004; 2005). This species occurs in Costa Rica and Panama in the center of diversity of the genus *Werauhia* (Grant 1995). In several sites in Panama, two morphological forms can be seen growing side-by-side. In typical *Werauhia insignis*, the leaves are linear-long with straight edges (non-waving) on a long-caulescent stem. The new variety has leaves about half as long as the typical, are broader and tend to wave slightly. *Werauhia insignis* is also one of few species of bromeliads that have nearly black petals on a background of red bracts (like *Pitcairnia nigra*), both attracting diurnal hummingbird pollinators.

*Werauhia insignis* var. *brevifolia* H. Luther ex J.R. Grant, var. nov. TYPE: Panama. Chiriqui: Reserva Forestal Fortuna, roadside forest 60 km N of Chiriqui, 08° 45 ' 575" N, 082° 12' 704" W, 1130 m, 14 February 2000, Jason R. Grant & James R. Rundell 00-3680 (Holotype US!).

A var. *insignis*, cui similis, foliis latioribus undulatis duplo brevioribus differt.

Just across the border, in Costa Rica, is where Chester Skotak collected the first plant I described as new, *Vriesea lutheriana* (Grant 1992). During a 1991 expedition to Costa Rica, Chester Skotak showed me the plant he had collected in the wild and then cultivated. It is a striking plant with broad dark green leaves, an orange-bracted tripinnate inflorescence, and light bluish grey petals. Chester let me take portions of the plant to study with the caveat that if it were a new species that I'd name it after Harry. Well, the plant did turn out to be a new species and it was named *Vriesea lutheriana*. This species occurs in southern Costa Rica and may also be expected in adjacent regions of Panama.

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## BROMELIACEAE SYMPOSIUM

Friday, July 12, 2013 at the New York Botanical Garden/Fordham University as part of Monocots V: 5th International Conference on the Comparative Biology of the Monocotyledons. A day-long technical symposium on Bromeliaceae systematics and phylogenetics organized by Dr. Jason Grant.

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Neoregelia Milagro f2  
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 kuntzeana  
 Marcelino f2  
 mertensii  
 nudicaulis pendulous  
 pubescens

Billbergia kautskyana  
 El Capitan x Richard Kenny f2  
 domingos martin x elegans

Guzmania monastacia v. varigata

Dyckia (Keswick x Paylen) x (Brittlestar x Arizona)  
 Southbay f2  
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