

Journal of The Bromeliad Society



VOLUME 48

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NOVEMBER–DECEMBER 1998

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NUMBER 6

Journal of the Bromeliad Society

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Vol. 48, No. 6

November–December, 1998

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Cover photographs. Front: Bundles of *Tillandsia guatemalensis* and *Tillandsia ponderosa* near the town of Chanal, Mexico awaiting transport to Villa de Acala where they will be used in a ritual celebrating Christmas. Text begins on page 257. Photograph by Robert Guess. **Back:** An unusual table arrangement made of pineapples, watermelons, strawberries, kiwis, and hard-boiled eggs on display at the Bromeliad Extravaganza '98' held in Florida. Photographs by Karen Andreas.

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The *Journal*, ISSN 0090-8738, is published bimonthly at Orlando, Florida by the Bromeliad Society International. Articles and photographs are earnestly solicited. Closing date is 60 days before month of issue. Advertising rates are listed in the advertising section. Permission is granted to reprint articles in the *Journal*, in whole or in part, when credit is given to the author and to the Bromeliad Society International. **Please address all correspondence about articles and advertising to the editor.**

Subscription price (in U.S. \$) is included in the 12-month membership dues: single—\$25.00, dual (two members at one address receiving one *Journal*)—\$30.00, fellowship—\$40.00, life—\$750.00. Please add \$8.00 for international surface mail, except for life members. For first class mail add \$10.00, for airmail please add \$18.00.

Please address all membership and subscription correspondence to Membership Secretary Carolyn Schoenau, P.O. Box 12981, Gainesville, FL 32604. Telephone 352-372-6589. E-mail: BSI@nervm.nerdc.ufl.edu

Back Issues: All single copies \$4.50 1st class postpaid to ZIP addresses, other countries \$5.50 airmail postpaid; per volume \$20.00 to ZIP addresses, \$25.00 to other addresses, 3rd class or surface postpaid. Order back issues from BSI Publications, 6523 El Camino Real, Carlsbad, CA, 92009, USA. Phone (760) 438-9393. E-mail: Publications@BSI.ORG. Make checks drawn on U.S. banks, bank drafts, or money orders payable to B.S.I. Prices are subject to change.

Printed by Fidelity Press, Orlando, Florida.

Call For Nominations for the Office of Director Thomas W. Wolfe

THIS IS THE CALL FOR NOMINATIONS FOR THE 1999-2002 TERM

Regions having vacancies for the three-year term:

Australia	1 director
California	1 director
Central	1 director
Florida	3 directors
Northeast	1 director
Southern	1 director
Western	1 director
International	2 directors

Who may nominate? Any voting member of the society who resides in a region for which there is an opening may nominate a candidate for an opening in that region.

Who may be nominated? A nominee must: (1) be a voting member of the society and have been a voting member for the three consecutive years prior to nomination; (2) reside in the region for which he/she has been nominated; (3) not have served two consecutive terms as a director immediately preceding nomination; (4) agree to being nominated; (5) agree to serve as a director if elected.

Procedure for nominating: (1) obtain the consent of the prospective nominee and verify compliance with the qualification criteria; (2) mail nominations to the chairman of the Nominations Committee between 1 January 1999 and 18 March 1999, inclusive. (Nominations must reach the chairman of the Nominations Committee by 20 March 1999.) Nominations by telephone will be accepted through 15 March but must be confirmed in writing; (3) supply with each nomination the full name, address and telephone number of the nominee, the position for which the nomination is being made, the local society affiliation, and a brief biography of the nominee.

Mail nominations to:

Dan Kinnard
BSI Nominations Chairman
6901 Kellyn Lane
Vista, CA 92084
(760) 414-9636
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Misnamed Bromeliads No. 18: a Trio

Harry E. Luther

Most bromeliad growers, especially those living in warm climate areas where they can keep some of their collections outdoors, cultivate members of *Aechmea* subgenus *Machrochordion* (the "bromeliifolia group"). From my experience, many of these plants are misnamed in horticulture. With the exception of some very distinctive species such as *A. triangularis* (Syn.: *A. kautskyana*), most of these similar-appearing plants are identified as *A. bromeliifolia*. The latter species may be treated in a future installment of this series; for now, I will discuss and illustrate three which I have found to be misidentified in horticulture and in herbaria.

Aechmea lamarchei Mez (figure 1) was described from a cultivated plant late last century. Recently verified specimens have been collected in the Brazilian



Figure 1.
Aechmea lamarchei; note the papery floral bracts.

Photograph by Vern Sawyer

State of Minas Gerais. The cultivated plants, probably introduced by M. B. Foster, most likely originated from there as well. *Aechmea lamarchei* is very distinctive as it has the longest flowers (more or less 30 mm long) of the group and large, conspicuous, rather papery floral bracts that exceed and conceal the 1/2 connate sepals. Plants commonly found in cultivation have long, coppery-green leaves and are usually quite caulescent.

Aechmea chlorophylla L.B.Smith (figure 2) was collected by the Fosters in 1939 and 1940 from Espirito Santo and Minas Gerais States, and described in 1955. The cultivated stock of this species is likely from these collections. Compared to *A. lamarchei* the flowers of *A. chlorophylla* are shorter (more or less 25 mm long) and the thick floral bracts



Figure 2.

Photograph by Vern Sawyer

A brightly colored clone of *Aechmea chlorophylla* flowering at the Marie Selby Botanical Gardens.



Figure 3.
Aechmea pabstii flowering in the collection of John Anderson.

Photograph by John Anderson.

only about equal the ovary. The short-connate sepals are conspicuously exerted beyond the floral bracts. This species is nearly stemless or very short-caulescent. The leaves are green or grey-green.

A very similar plant is *A. pabstii* E.Pereiro & Moutinho (figure 3) from Bahia, Brazil. This species differs from *A. chlorophylla* by having higher-connate sepals and white or pale creamy-yellow petals. *Aechmea pabstii* is rare in cultivation.

Mulford B. Foster Bromeliad Identification Center
Marie Selby Botanical Gardens
Sarasota, Florida

Change in Dues Structure

Effective January 1, 1999 multi-year membership renewals will be offered at a reduced rate. A two-year single-member renewal can be had for \$48 (a savings of \$2 over the regular rate) and three year renewals will cost \$70 (A \$5 savings over the regular rate.)

There is no change in the amount charged for postage.

ERRATA: In the May-June 1998 issue, Vol 48(3):169, a footnote listed author José M.. Manzanares as the Curator of the National Herbarium of Ecuador (QCA). The notation should have read (QCNE), not (QCA).

Billbergia × *Windii*

Derek Butcher

Photographs by the Author

This plant is alive and well, and growing in the Munich Botanic Garden, Germany, according to Jo Bogner, the curator. It has therefore survived in Europe for some 115 years, including two world wars, making it one of the oldest surviving hybrids on record. This saga begins in 1882 where, on page 238 in *La Belgique Horticole*, supplied to me by Dr. G. Samyn of Belgium, we read, "The hybrid made by Monsier Fr. Wiot with *Billbergia nutans* fertilized by *B. baraquiniana*" was certainly successful. The hybrids flowered in July 1882 with the characters of form and coloration really intermediate between the two parents. The petals in particular colored as for *B. nutans*, and closely coiled as in *B. baraquiniana*".

The plant appears on page 250 of *La Belgique Horticole* in 1885 where it is given a name. "*Billbergia nutans* was fertilized by *B. baraquiniana* and is well known under the name of *B. Windi* (note the one "i"). It was obtained from DMM Jacob-Makoy at Liege."

My next reference is from the German *Gartenflora* in 1889 in an article by L. Wittmack where *Billbergia Windii* is described from a drawing (currently at Kew Gardens) by Edouard Morren. *Billbergia* "*baraquiniana*" eventually became *Billbergia decora*.

Let us now move to more recent times when, in 1955, Charles Hodgson of Melbourne, Australia, sent a plant called *Billbergia* "meadie" to the Adelaide Botanical Gardens. Shortly afterwards, a botanical painting was done of this plant (figure 5). Its parents were stated as *Billbergia nutans* and *Billbergia* 'speciosa'.

In years past, *Billbergia* 'speciosa' was a popular name and was used for at least 5 different plants, which in turn became *Quesnelia marmorata*, *Billbergia pyramidalis*, *Billbergia elegans*, *Billbergia amoena*, and *Billbergia amoena* var. *minor*. None of these plants are in the subgenus *Helicoideae* which has the watchspring petals, yet figure 5 has a similar petal arrangement to the line drawing by Morren at Kew. Very few recent hybrids include *Billbergia nutans* in their makeup, and only some of the old hybrids survive. However, in my experience the watchspring phenomenon is only inherited from the *Helicoideae* group. The parentage of *Billbergia* "meadie" is therefore suspect.

Where did Charles Hodgson get his plant? The investigation moves to the USA because this was where Charles Hodgson got most of his plants. He was a regular contributor to the BROMELIAD SOCIETY BULLETIN in the early 1960's.

In the BROMELIAD SOCIETY BULLETIN, May/June 1956, page 47 we read, "For many years E.O. Orpet exchanged seeds with Theodore Mead of Florida and he



Figure 4.
Plant labeled as *Billbergia*
'Theodore L. Mead'



Figure 5.
Painting of a plant labeled as *Billbergia* "meadie" Charles Hodgson
sent to the Melbourne Botanical Gardens.

introduced into California *Billbergia* X *Meadii* which is one of the favorite billbergias of western growers."

In the BROMELIAD SOCIETY BULLETIN 1962, page 71, Giridilian mentioned the hybrid *Billbergia* 'Theodore L. Mead' but gave no parentage.

Victoria Padilla in her book *Bromeliads* published in 1973, mentions and describes *Billbergia* 'Theodore L. Mead' on page 124 but not *Billbergia* *Meadii*. On the same page she described *Billbergia* 'Windii' indicating that she believed them to be different. However, I am not sure whether she was conversant with the plant because the photograph on page 125 originated in Czechoslovakia. Her description of *Billbergia* 'Theodore L. Mead' is as follows. "A very popular hybrid with long-lasting inflorescence that blooms several times a year. A medium-sized plant with spreading, soft-green leaves. The drooping inflorescence has large rose bracts and blue and green flowers."

At about the same time that Padilla's book was published, the editor of the Australian BROMELETTER (Nov/Dec) 1972, Olwen Ferris wrote, "*B.* 'Theodore L. Mead' (often sold as *B.* 'meadii') has a large drooping inflorescence and pots of this hybrid need to stand above bench level. It also makes a good subject for hanging baskets. Low spreading, soft-green leaves make a foil for the very large rose bracts and the blue and green flowers. Established colonies flower as each tube matures and not at any set time."

It would seem that both people were talking about the same plant and it would appear that 'Theodore L. Mead' and "meadii" refer to the same plant.

However, there is no apparent link between *Billbergia* X *Windii* and *B.* 'Theodore L. Mead' although they seem very similar. Theodore Mead reputedly hybridized widely and was fond of *Billbergia nutans* as a parent, but he did not keep records, and only bequeathed problems. It is possible that he was successful with pollen from one of the *Helicoidea* group when he sent seed to E.O. Orpet. Alas, we will never know.

What we do know is that David Barry in his trip to Europe (BROMELIAD SOCIETY BULLETIN 1954, page 55), saw a range of plants not at that time in the U.S.A. We knew he brought back *Vriesea* X *hoelscheriana* because it is alive and well in Australia having been imported from David Barry. Contrary to common belief, this hybrid was not done by Richter and its parents are probably *Vr. saundersii* and *Vr. guttata*, not *Vr. heterostachys* v. *rubra* x *Vr. simplex* v. *rubra* as stated in the Preliminary Listing of all Known Cultivars. Its origin is possibly linked to the German Kittel at the turn of the century. Remember, he did name *Billbergia* X *hoelscheriana*.

Did David Barry Jr. also bring back *Billbergia* X *Windii*? Mention was made of him seeing this plant in Europe. I can find no trace in Australia and all our plants seem to link with *Billbergia* "meadii" and *Billbergia* 'Theodore L. Mead.'

How close is *Billbergia* 'Theodore L. Mead' to *Billbergia* Windii? I have translated the description of *Billbergia* Windii made in 1889 and this is as follows. All comments in brackets are based on my plant of *Billbergia* 'Theodore L. Mead' for comparison purposes:

"**Leaves** strap shaped, very long to 85 cm [50 cm], narrow, 30-33 cm wide in middle [4-4.5 cm], the sheath a little wider, gradually tapering to a long tip, edges very weak and very [minutely] spined [1 mm long], spines 1 cm apart [5 mm], stronger toward the tip, pointed toward the front. **Leaf blade** top side almost smooth, dark green, shiny, [lepidote with barring]; underneath very weakly scaled [lepidote in lines], scarcely indistinct, grey cross-banded [none evident], Inflorescence forming a hanging spike. **Scape** 70—75 cm long [30 cm]. **Scape bracts** numerous, inside light rose, outside carmine, longish, lance-like [lower ones green tipped, all heavily lepidote]. **Flowers** large, 75 mm long [65 mm] to the tip of the stigma. **Sepals** longish, lance-like, acuminate, to 20 mm long, 5.5—6 mm wide [7 mm], and 7 mm wide at base [5mm], green, edges rose, the tip sky-blue, white farinose. **Petals** 2 ½ times longer than the sepals, long-linear, gradually narrowing to a point, 55 mm long, at anthesis wholly rolled back [not tightly], later straight, blade green, edges blue, 6 mm wide [7 mm], tip 2.5 mm wide. **Stamens** shorter than the petals, 55 mm long [40 mm], ribbon-like, stiff, parallel, yellow-green. Filaments 45 mm long [30 mm], linear, a little wide at base. **Anthers** 12 mm long, joined at the lower half in the middle of the back [2 mm from the bottom]. **Style** longer than the stamens, 62 mm long [46 mm], dark green with spreading, later spiraling, lobes 6.5 mm long [12 mm with a hint of blue]. **Ovary** thick, long or long-cylindric [oval], incised under the tip, shorter than the sepals, 7 mm diameter in the middle, 5 mm above, ribbed, green.

How significant are these differences? Note that no size is given for the scape bracts but in Morren's line drawing at Kew in the original article in 1889, they are much smaller than those of *Billbergia* 'Windii' in Padilla's book. Should the old name of *Billbergia* X windii prevail?¹ I know that I could get further evidence by importing a plant from Munich Botanic Gardens but this would cost me over \$300 Australian to get it to Australia because of quarantine and shipping costs. Please advise the writer if you have any less expensive suggestions.

Fulham, South Australia

¹ Ed. Note: The recently published Bromeliad Cultivar Registry states that *Billbergia* Windii was mistakenly renamed B. 'Theodore L. Mead' shortly after its introduction into the U.S.A. from Europe. We owe the author thanks for being among the first to point out the similarities between the two plants.

Meet the BSI's New President and Vice President

Thomas W. Wolfe of Tampa, Florida was elected President of the Bromeliad Society International at the BSI Board of Director's meeting in Houston, Texas on July 7, 1998. Tom has been growing bromeliads for more than thirty years, and for much of that time has assumed leadership roles at several levels of the BSI and various local bromeliad societies and other plant groups. Tom has been on the BSI board for the past ten years; serving as Vice President, as Secretary of the BSI, and as a Director from Florida during that period.

He has also represented the Bromeliad Guild of Tampa Bay for the Florida Council of Bromeliad Societies for eleven years and has served as Chairman of the FCBS. He is a past president of the Bromeliad Guild of Tampa Bay, is currently Third Vice President of the Tampa Federation of Garden Clubs, Inc. and is serving on the 1998/1999 Mayor's Beautification Committee in Tampa. He has been a member of the Tampa Guild for 32 years.

He is a member of the Cryptanthus Society, The Royal Horticultural Society, The Tampa Orchid Club, and the Tampa Bay Orchid Society.

Born and raised in Wilkes-Barre, Pennsylvania, Tom attended St. Pete Jr. College and Penn State University. He spent four years in the U.S. Air Force. Before forming his own landscaping and irrigation business in Tampa, Tom worked as a chemist for the National Gypsum Company in Tampa and the Jim Walter Research Corporation in St. Petersburg, Florida.

An invitation from Ervin Wurthman to his home to hear Lennie Yarbrough do a program on *Dyckia fosteriana* hooked Tom on bromeliads. That started a love affair with the bromeliad family that has evolved into a thirty-year collection of thousands of plants housed in five greenhouses and arranged in the landscape surrounding his home.

He has been tirelessly promoting the use of bromeliads on the local, state, national, and international level for many years and has always found the time to share his knowledge and enthusiasm for them with both the novice and the veteran grower.



Figure 6.
Thomas E. Wolfe
BSI President



Figure 6.
Hattie Lou Smith
BSI Vice President

Hattie Lou Smith of Ft. Myers, Florida was elected as Vice President at the same board meeting. Before her election, Hattie Lou was serving as a BSI Director from Florida. She is a charter member of the Caloosahatchee Bromeliad Society which was founded in 1980. She has held various offices with that organization, including that of President.

Hattie Lou has been photographing, studying, hybridizing and collecting bromeliads for almost twenty years. During that time she and her husband, Dr. Sam Smith, have made more than twenty trips to Central and South America, and to the Caribbean islands looking for new cultivars and species. They are particularly proud of introducing *Pitcairnia smithiorum*, a species named in their honor, into cultivation. They

have also introduced a number of fine hybrids of various genera into the nursery trade, written articles for the Journal of the Bromeliad Society, and worked in three BSI world conferences.

The BSI is fortunate to have two such capable and experienced people as these at the helm as it embarks into the second half-century of its existence.

The 1998 Houston World Bromeliad Conference

Herb Plover

Four days of non-stop exchanges of information and opinions on horticulture, taxonomy, new and old hybrids, and the work of the BSI added to the enrichment of my own bromeliad education, and this aspect of a conference experience is perhaps the most valuable reason to attend. However, equally pleasurable is the fact that it provided an opportunity to visit with many old and new friends from across the country and around the world. For both of these reasons, I have attended every one of the world conferences.

Houston hosted the very first world conference in 1972 – a marvelous event still fondly remembered. This was the third conference held in Houston, and was the smallest of the three, no doubt due to the influence of El Niño, which wreaked havoc on Texas weather as it did throughout much of the rest of the country. Of the announced 400 (more or less) entries, about 35-40% were cryptanthus, and another approximate 30% were neoregelias. There were about 2 dozen billbergias and about the same number of vrieses on display. Other genera were represented in smaller numbers (based upon my slide record of the show at least.)

Guzmania 'Graaf van Hoorn', a Deroose cross between *G. conifera* and *G. zahnii*, was named as Best in Show. A second specimen of this magnificent plant was donated by Deroose to the rare plant auction.

The plant sales area provided a rich feast of bromeliads available for purchase and sales were brisk. As usual, prices ranged from the high side on the hard to find plants down to real bargains on some of the more common varieties. Demand was high and most dealer's inventories were depleted by the time everyone left.

Seven important new bromeliad books were available for sale on special tables in the sales area, and five of the authors were present to sign their works for those who bought them.

The seminars were exceptional. Elton Leme gave two fine talks on "The Nidularium Project" and "Recent Bromeliad Discoveries in Brazil." John Anderson, who has one of the largest aechmea collections in the world and harbors a wealth of knowledge about how to grow them, spoke on "Aechmeas I Have Known." John Arden, well known for his beautiful vriesea hybrids described his "Adventures in Hybridizing." Don Beadle, "Mr. Billbergia", gave two talks on "Billbergias of the Brazilian Atlantic Rainforest" and "Billbergias and Baroque Revisited." Dennis Cathcart, owner of Tropiflora and renowned explorer and plant collector, gave a talk on collecting "Bromeliads of Honduras."

Bruce Holst, Herbarium Manager of the Marie Selby Botanical Gardens in Sarasota, took us on a fascinating trip to view "Bromeliaceae of the Lost World of Venezuela." José Manzanares, Curator of the National Herbarium of Ecuador (QCNE), reviewed the "Bromeliaceae of Ecuador" for us, and renowned Venezuelan author Francisco Oliva-Esteve provided a program on "High Altitude Bromeliads of the Venezuelan Andes."

Jerry Raack, Past President of the BSI and an avid collector of cooler growing plants gave a talk on "Growing High Altitude Bromeliads." Dorothy Byers of Vista, California, an expert on her topic, "Terrestrials and Their Kin." And Maurice De Profit, a professor of applied plant science in Belgium and a researcher on *in vitro* fertilization of bromeliads, discussing "Flowering Control of Bromeliads" rounded out this group of talented and informative speakers.

One of the items introduced at the show was an ethylene tablet developed by Professor DeProfit. These little pills provide an easier and safer alternative to other means of inducing flowering in bromeliads and based upon reports from those who purchased them, have provided excellent results in tests conducted in the ensuing months.

On the down side, some of the popular features found at previous conferences were missing from this one, including affiliate and commercial plant exhibits, and a variety of home tours. The home tour that was provided, a trip to Don Garrison's home, was well worth the trip. Don's collection was spectacular and his method of displaying and growing them drew much interest. On the other hand, the facilities where the conference was held, the Wyndham Hotel, was an excellent venue with adequate restaurant facilities and plenty of room to socialize – two factors that have not always been adequate at some of the previous conferences.

Planning a world conference involves a grueling two years of complex organizational efforts, as well as a lot of hard work, both physical and mental. We all owe the Houston Bromeliad Society a debt of gratitude for pulling off its third successful one.

The next BSI World Conference will be held in San Francisco, California from June 26 through July 5, in the year 2000. This event will celebrate the 50th Anniversary of the founding of the BSI. Many people have already registered and begun marking off the days on the calendar. Count me among them.

New York, New York

Reprinted with some revision from BROMELIANA, the publication of the New York Bromeliad Society, 35(6). October 1998.

Affiliates in Action

Gene Schmidt

The Bromeliad Society of New Zealand, Inc. reports that meetings are attracting larger attendance lately, perhaps on account of the milder weather or perhaps because of an upsurge in interest in bromeliads. They had an update on the conference to be held in Cairnes in August of 1999. Bookings are already heavy, and it sounds like it will be a good show. The highlight of the July meeting was seeing the World Conference slides by Peter Waters, making many society members envious of his recent trip overseas. Descriptions cannot do justice to the truly beautiful bromeliad slides taken by Peter at the Houston Conference. It was certainly no coincidence that he is now erecting another shade house. (The Bulletin, Bromeliad Soc. of New Zealand, Inc., Aug. and Sep. '98)

Betty Ann Prevatt, President of the Caloosahatchee Bromeliad Society (FL) and newly elected Chairperson of the BSI Judges Certification Committee, writes in one of her recent columns, "I think many societies don't realize that they can create a division or section in shows for their own needs. These will not be eligible for BSI awards, but they can create their own society awards. As an example, CBS did this at our show last year, creating a section for "Unnamed Bromeliads" and also one for "Cut Inflorescences"; with the best in each section winning an award from CBS. The basic requirements to stage a BSI Show are really not hard to fulfill. Then build your show from that and create the areas that are important to the society, the geographic region and growing conditions. I hope more societies will try this; and if they do, I think they will have more fun staging their shows. (Caloosahatchee Meristem, Caloosahatchee Bromeliad Society, Sep. '98)

The South Bay Bromeliad Associates of California announced a new division for their annual show. Tibor Halmagyi is sponsoring the new award in memory of his wife, and the award will be called the Georgiana Halmagyi Award. The award is established to encourage creation and display of new bromeliad hybrids, and will become part of the permanent show schedule. The winner of the award will receive a one-year subscription to the BSI Journal. Hybrids that have never been previously shown in a bromeliad show are eligible. At the October meeting, Ted Johnson personally thanked all the people who brought plants to the society's show by giving them a plant from his collection. Leslie Walker presented "The Show's Best Stamper and Laminator Award" to Val Oleson, who was personally responsible for making the handmade plaques given out as first place prizes. (South Bay Bromeliad Associates newsletter, Aug-Oct. '98)

Three people were accepted for life membership in the Bromeliad Society of Central Florida. Geoff Johnson read a letter from Carol Johnson recommending Eloise Beach, and Betsy McCrory read a letter recommending

Mac and Florence McKinney. Congratulations to these people who have worked so hard for the BSCF's behalf! Geoff also reports that their latest rare plant auction raised a little more than \$1800 for the Florida Council of Bromeliad Societies and will be used in part to fund the new FCBS's website. The Florida Council of Bromeliad Societies website can be located at <http://fcbs.org>. (Newsletter of the Bromeliad Society of Central Florida, Sep. '98)

BSI membership gift news includes an update on the second BSI membership donated by Don Beadle to the Bromeliad Society of Broward County, Inc. (FL). The current president of the BSBC, Fred Sutton, was the appreciative winner. The Bromeliad Guild of Tampa Bay, Inc. (FL) sent a gift membership in the BSI for two biology professors at the University of Colombia, South America, so they can have the BSI Journal for their library.

The Bromeliad Guild of Tampa Bay, Inc. also helped celebrate the life of Art Van Hyning, who celebrated his 100th birthday in October. Art was the first recipient of the BGTB Ervin Wurthmann Award for Distinguished Service. This well deserved honor recognized his years of service as Sales Chairman, Director, and influential leader of BGTB activities. One of Art's four brothers, Oather Van Hyning, first got Art interested in bromeliads in the 1960's. Oather had made a number of collecting trips and was also on the board of the Bromeliad Society, Inc. *Tillandsia ionantha* var. *van-hyningii* was named in Oather's honor. Art's enthusiasm was infectious and his plant knowledge impressive. The BGTB takes this opportunity to say thanks, Art, for your leadership, knowledge, and friendship. (Newsletter of the Bromeliad Guild of Tampa Bay, August-October '98)

I would like to encourage affiliated societies to trade their newsletters and publications. One of many fine society newsletters is the BROMELIANA, published by the New York (NY) Bromeliad Society and edited by Herb Plever. Herb has been editing the newsletter for many years; and his use of color pictures is outstanding while the newsletter itself is very educational and informative.

The Florida West Coast Bromeliad Society has a website at <http://www.atlantic.net/~brom1/fwcbs.htm>, and their newsletter can be seen on editor James Boynton's website at <http://www.fortunecity.com/skyscraper/techie/519/brompage.htm>.

Tillandsia guatemalensis: La Flor del Niño

Virginia Guess and Robert Guess

Photographs by
Robert Guess

Mid-December marks the beginning of preparations to celebrate the Christmas season in many communities throughout Chiapas, Mexico. This time of heightened social activity also coincides with the maturation of the tall, red inflorescences of *Tillandsia guatemalensis* L.B. Smith (Smith and Downs 1977) that garnish the oak and pine trees in the forests of the highlands. As part of the festivities, residents of San Cristóbal de Las Casas favor these local bromeliads to decorate their churches and household *nacimientos* (creches or Nativity scenes). Thousands more, however, are transported over 100 kilometers to the municipalities of Acala and Chiapa de Corzo in the Río Grijalva Basin where *T. guatemalensis* and *Noche Buena* (Christmas Eve) have become almost synonymous.

For hundreds of years, the residents of the small *pueblo* of Villa de Acala have followed the tradition of building a *creche* in the shape of a *casita* (small house) and adorning its roof with this bromeliad which they refer to as *la flor del Niño* (the flower of the Christ Child). Ten days prior to December 24, men from the community hire trucks to make the upward journey from Acala, located in the Central Depression of Chiapas (300 to 500 meters), to the cool highlands near Chanal (2100 to 2400 meters) to harvest flowering plants of *T. guatemalensis*. They seek out only those in full bloom with mature inflorescences that have turned a rich, red color and reached a meter or more in height. At this stage of development, myriads of small, violet-blue flowers dot the multi-tiered, three-pronged spikes. Spaced from



Figure 8.

Youngster cleans *Tillandsia guatemalensis* in preparation for the decoration of the roof.



Figure 9.
Each plant of *Tillandsia guatemalensis* is individually attached to a frame covered with dried sugar cane leaves.



Figure 10.
Inflorescences of *Tillandsia ponderosa* trim the roof edge.

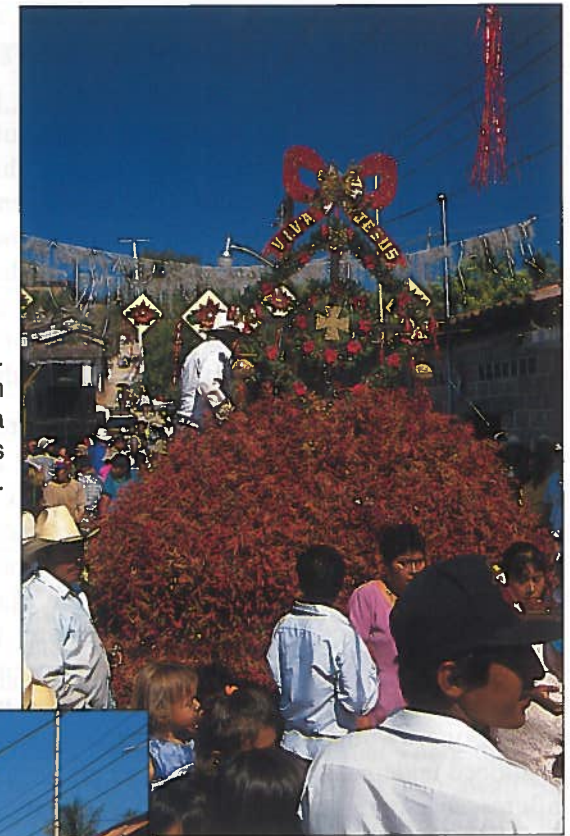


Figure 11.
Once the roof is covered with *Tillandsia guatemalensis*, a large wooden cross is inserted at the peak.



Figure 12.
Young men carrying bundles of *Tillandsia guatemalensis* lead the procession to the church.

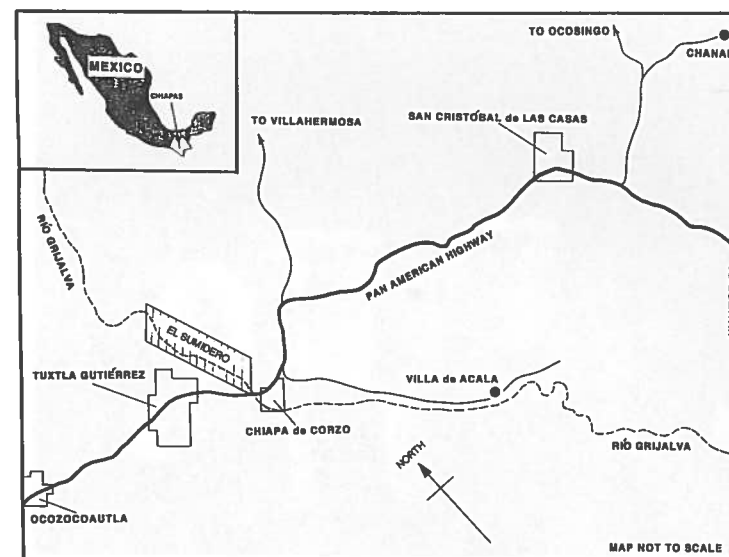
one to two centimeters apart and arranged in a compound-pinnate fashion, the branches and spikes of each inflorescence emerge off an erect, red scape.

While the gatherers scour the highland forests for pockets of blooming plants, other men are busy in Villa de Acala building the *casita*. They especially tend to the construction of its peaked roof which they will decorate later with bromeliads. They begin by blanketing a wooden framework, approximately three meters square, with dried leaves from sugar cane plants. Then, on the morning of *Noche Buena*, this frame and over a thousand individual plants of *T. guatemalensis* are assembled along a narrow street about eight blocks from the main church of Acala. Here amidst a crowd of five hundred or more onlookers entertained by musicians and masked dancers, the men start decorating the roof.

In spite of the apparent chaotic atmosphere, the events of the day are highly organized with an elder of the town overseeing the men to insure that each phase proceeds according to long-established custom. While it is being decorated, the roof is supported on wooden-plank benches elevating it 40 to 50 centimeters off the ground so that work can proceed above and below the framework. The first task falls to youngsters who prepare the plants by untying the bundles of *T. guatemalensis* and stripping away the outer wilted or browned leaves so that only the freshest and brightest remain to accent the inflorescences. Next, more experienced men take the prepared plants and with sharpened sticks insert them one by one through the cane-leaf thatch. At the same time, other helpers positioned underneath the structure, secure each-plant with hemp cord to keep the inflorescence upright. The process takes twenty to thirty workers several hours to completely overlay the roof with this dazzling carpet of red. As a final ornamental touch, they trim the bottom of the four sides with a single fringe of red-orange inflorescences from *Tillandsia ponderosa*, another highland bromeliad.

Around noon as the roof nears completion, the crowd increases along with the quickening tempo of music and dancing. The air reverberates in anticipation of the climax of one phase of the celebration and the beginning of the next. The appearance of a senior member of the community carrying a wooden cross adorned with green foliage and a banner proclaiming "*Viva Jesús!*" quiets the onlookers who pause to watch as he reverently inserts it at the peak of the decorated roof. This act of blessing replicates the local custom of installing a wooden or iron cross on the roof of a newly completed house. To the crowd on this day, however, it signals that the roof is ready to be moved to the church.

In a flurry of confusion as onlookers hurl colorful paper streamers and confetti, twenty to thirty young men emerge from a doorway of a nearby house into the street. Each carries on his back a huge cluster of *T. guatemalensis* supported by a *mecapal* (tumpline). These additional plants will provide further adornment when the completed *casita* is assembled at the church. As the crowd separates to clear the way, the flower bearers arrange themselves in vanguard-



fashion behind the musicians and in front of the gathering throng which then falls in step. The last of the crowd surrounds the roof as it is lifted atop two, six meter-long, peeled-pine poles and then hoisted on to the shoulders of fifty or more men. Shepherded by masked dancers who beckon bystanders to join the procession, the entire entourage winds its way through the streets to the church. There the roof will crown the open-sided shelter placed at the side of the altar to await the forthcoming, solemn celebration on the evening of *Noche Buena*. The townspeople proudly boast that nowhere else in the state of Chiapas is such a structure constructed and roofed with these beautiful bromeliads.

In marked contrast to this gala fete in Villa de Acala, a rather somber preparation occurs on the same day in the neighboring town of Chiapa de Corzo. Several days prior to *Noche Buena*, Maya Indians on an annual pilgrimage from a highland village, carry heavy loads of flowering *T. guatemalensis* to the colonial church of Santo Domingo. Here, on Christmas Eve, townspeople assemble to build their traditional *nacimiento* using these plants as the major floral decoration. This three-sided structure framed in wood, about four meters high, lacks the elaborate bromeliad-covered roof of the *casita* in Villa de Acala. Instead, the flowering plants are arranged in a compact shield to form the walls that act as a backdrop for life-sized figures in the Nativity tabloid. Other highland tillandsias add bright festive touches to the scene: the long, pendulous, green/pink, and multi-spiked inflorescences of *Tillandsia eizii*; the thick, orange-red inflorescences of *T. ponderosa*; and the thin, gray, billowy strands of *Tillandsia usneoides*. While these other bromeliads embellish the creche, *T. guatemalensis*, by far, is the preferred and most prevalent plant.

Here, those who create the *nacimiento* refer to all these tillandsias as *niluyarilo*, a generic word in the Chiapanec language meaning precious flowers



Figure 13.

The roof covered with *Tillandsia guatemalensis* is transported on long pine poles through town.



Figure 14.

The completed casita, adorned and surrounded with hundreds of *Tillandsia guatemalensis*, stands near the altar of the church in Villa de Acala on Noche Buena.



Figure 15.

Rear view of the nacimiento in Chiapa de Corzo. Note the compact walls made of *Tillandsia guatemalensis*.



Figure 16.

Several species of tillandsia decorate the nacimiento in Chiapa de Corzo.

having extraordinary beauty (Aguilar Penagos 1992). This continued use of a Chiapanec word for these flowers is yet another reminder of the bonds that residents of this state maintain with their heritage. The commercial ties that connect the Maya of the highlands where these bromeliads grow, to the communities in the Central Depression of Chiapas where they are prized for festivities on *Noche Buena*, may also represent a survival of old trade routes that once linked these two regions in pre-Hispanic times. Between A.D. 500 to 900, the Chiapanec migrated into the Central Depression and settled near present-day Chiapa de Corzo. They established themselves along the Río Grijalva where their territory bordered on the lands of the highland Maya to the northeast and of the Zoques to the northwest. Although it was the Chiapanec who ultimately gave their name to the state of Chiapas, only a handful of place names in the Río Grijalva Basin and a few words, such as *niluyarilo*, persist in this language. What remains firmly in place, however, are established traditions that foster a continued interaction between the inhabitants of the highlands and those of the Central Depression.

Fortunately for the residents of Villa de Acala and Chiapa de Corzo, *T. guatemalensis* continues to flourish in the surviving highland forests. Its reproductive behavior undoubtedly is one reason for this success. Although many horticulturists purport that in cultivation this tillandsia reproduces only through seeds, our observations in its natural habitat verify that it also puts forth numerous asexual axillary and adventitious offsets. For however long these populations of highland bromeliads continue to thrive, large numbers of *T. guatemalensis*, *la flor del Niño*, will compose the floral backdrops of the traditional Christmas creches in Villa de Acala, Chiapa de Corzo, and other communities in the Río Grijalva Basin as well as in the highlands. This serves as just one more illustration of the significant role bromeliads play in the cultural life of Chiapas (Guess and Guess 1996, 1998).

NOTE: In order to alleviate some of the confusion that exists in describing flower colors, we have chosen to follow the Colour Chart published by the Royal Horticultural Society, London, 1966. Using this system, the flowers of *Tillandsia guatemalensis* match with Violet-blue Group, 90A.

REFERENCES

- Aguilar Penagos, Mario. 1992. Diccionario de la lengua Chiapaneca. Mexico, Miguel Angel Porrua, p.430.
- Guess, Robert and Virginia Guess. 1996. Reestablishment of *Tillandsia eizii* in a Protected Habitat. J. BROMELIAD SOC. 46(3):113-115.
- Guess, Virginia and Robert Guess. 1998. *Tillandsia guatemalensis* in Ritual Adornment. J. BROMELIAD SOC. 48(2):69-74,87.
- Royal Horticultural Society Colour Chart.. 1966. London: Royal Horticultural Society.
- Smith, L.B. and R.J. Downs. 1977. Tillandsioideae (Bromeliaceae). In Flora Neotropica, Monograph No. 14, Part 2, pp. 721-723. New York: Hafner Press.

Santa Barbara, California

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Observations on the Genus *Guzmania* in Panama

Jason R. Grant

Photography by the Author

The genus *Guzmania* is one of the largest genera of Bromeliaceae in Mesoamerica, following *Tillandsia*, *Werauhia*, and *Pitcairnia* respectively. A number of species occur in western Panama, of which the following are documented here in color photographs: *Guzmania calamifolia* André ex Mez, *G. circinnata* Rauh, *G. donnell-smithii* Mez ex Donnell Smith, *G. glomerata* Mez & Wercklé, *G. plicatifolia* L.B. Sm., *G. rosea* L.B. Sm., and *G. sprucei* (André) L.B. Sm. In addition to the typical form of *Guzmania calamifolia*, many sites in Panama have a different color morph that is described here as *Guzmania calamifolia* var. *rosacea*. Also, notes are provided on the distinctive taxon *G. circinnata* Rauh.

Guzmania calamifolia var. *rosacea* J.R. Grant, var. nov. (Figures 17-18).

A var. *calamifolia* bracteis rosaceis et petalis albis differt.

Type: Panama. COCLÉ. Parque Nacional Omar Torrijos, 7.1 km from El Cope, 8° 26' 325" N, 80° 02' 936" W, 706 m, 30 December 1997, J.R. Grant 97-02700 & J.R. Rundell (holotype, US; isotypes: MO, NY, SEL).

The new variety is identical in all morphological aspects to the typical form except in the color of its bracts and petals. Where the typical form has red bracts and yellow petals, the new variety has pink bracts and white petals. Only one variety has ever been observed at any given locality, though the possibility remains that they may be sympatric in some areas. Other bromeliads collected at the type locality include: *Guzmania donnell-smithii* Mez ex Donnell Smith (97-02699), *G. sprucei* (André) L.B. Sm. (97-02698), *Tillandsia insignis* (Mez) L.B. Sm. & Pittendrigh (97-02692), *Werauhia kupperiana* (Suessenguth) J.R. Grant (97-02696), and *W. nephrolepis* (L.B. Sm. & Pittendrigh) J.R. Grant (97-02697).

Guzmania circinnata Rauh, *Trop. Subtrop. Pflanzenwelt*. 60:48-51. 1987. (Figure 19).

This relatively unknown species was rediscovered along the revegetating roadcuts of the highway from Chiriqui to Chiriqui Grande just north of the Fortuna Dam in the Chiriqui Province of western Panama. This is a high premontane rainforest in the Cordillera de Talamanca where numerous species of rare and interesting Bromeliaceae occur. Specimen examined: Panama. CHIRIQUI: Reserva Fortunal Fortuna, roadside forest 63 km north of Chiriqui (on road to Chiriqui Grande), 8° 46' 726" N, 82° 11' 969" W, 1069 m, December 28, 1996, Grant 96-02665 & Rundell (US, SEL, MO).

Plants epiphytic or terrestrial on roadcuts, flowering to 36–42 cm tall. Leaves rosulate, ligulate, gently recurving, thin coriaceous, 18–25 in number,



Figure 17.
Guzmania calamifolia André ex Mez; var. *calamifolia* (right),
contrasted with var. *rosacea* J.R. Grant (left)



Figure 19.
Guzmania circinnata Rauh



Figure 18.
Guzmania calamifolia var.
rosacea J.R. Grant

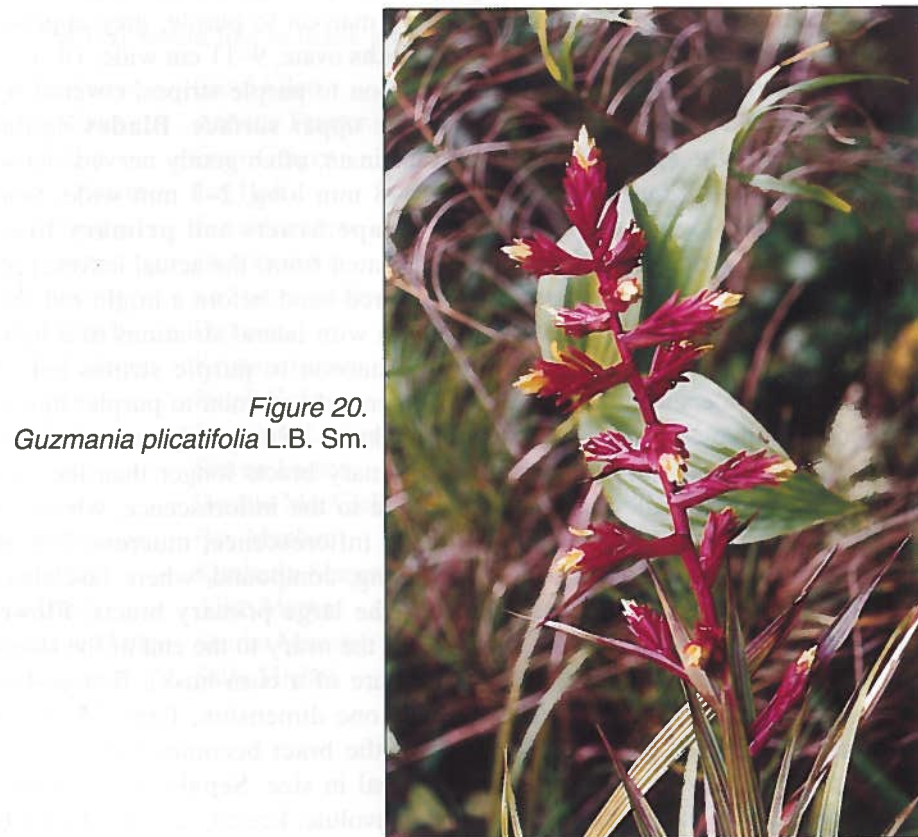


Figure 20.
Guzmania plicatifolia L.B. Sm.



Figure 21.
Guzmania glomerata in habitat

30–35 cm long, green adaxially, often with lateral striations of a lighter green and infrequent random faint maroon to purple blotches; green with thin vertical maroon to purple stripes abaxially to entirely maroon to purple, grey appressed punctate lepidote abaxially and adaxially. **Sheaths** ovate, 9–11 cm wide, 10–12 cm long, green with prominent thin vertical maroon to purple stripes, covered with densely compacted castaneous scales on the upper surface. **Blades** ligulate, rounded towards the apex, mucronate and uncinat, often gently nerved, densely gray lepidote, 46–58 mm wide; **mucrone** 3–8 mm long, 2–3 mm wide. **Scape** erect, 14–20 cm long, 14–18 mm wide. **Scape bracts** and **primary bracts** identical in all respects (and scarcely differentiated from) the actual leaves, green at the base to middle, then a maroon to wine-red band before a bright red apex, foliaceous, 30–35 cm long, green above, often with lateral striations of a lighter green; green with prominent thin vertical maroon to purple stripes beneath (especially near the sheath/blade junction) to entirely maroon to purple; ligulate, rounded towards the apex, mucronate and uncinat, often gently nerved, densely gray lepidote, 48–60 mm wide, the lower primary bracts longer than the upper ones such to give a somewhat pyramid outline to the inflorescence, where they are also nearly longer than the height of the inflorescence; **mucrone** 3–8 mm long, 2–3 mm wide. **Inflorescence** 22 cm long, compound, where fascicles of 5–7 flowers occur deep within the axils of the large primary bracts. **Flowers** without pedicels, 85–95 mm long from base of the ovary to the end of the stigma. **Floral bracts** light green (the color and texture of a corn husk), flattened and samara-like, linear-obovate when pressed to one dimension, firm, 75–90 mm long, strongly keeled such that one side of the bract becomes tightly folded against the other, the two sides usually unequal in size. **Sepals** free, hyaline to faint light green, triangular in outline, acute, involute, keeled, thin and fleshy but

not coriaceous, 30–35 mm long, 7–8 mm wide at base, 6–8 mm wide at middle, much shorter than the floral bract and petals. **Petals** light green, united (connate) into a long corolla lobe for about 2/3 their length, the individual straight linear-long petal lobes recurving back, then becoming curled early in anthesis, apex obtuse, 75–92 mm long, petal lobes 5–7 mm wide along their entire length. **Stamens** exserted, adnate to the petals for 2/3 their length. **Filaments** light green, robust, 1 mm wide. **Anthers** linear-sagittate, dorsifixed basally, 3.5–5.0 mm long 1.0–1.5 mm wide, facing inwards toward the pistil. **Pollen** yellow. **Pistil** 87–93 mm long, longer than the stamens. **Ovary** 7 mm long, 3 mm wide at anthesis. **Style** light green, 78–83 mm long, 1 mm wide. **Stigma** grass to emerald green (the darkest green of the entire flower), with the convolute blade type stigma morphology, 2–3 mm long, 4–5 mm wide, stigma lobes each 2.5–3 mm long, 1 mm wide, extending 5–8 mm beyond the stamens, copiously papillate.

Institut de botanique, Université de Neuchâtel
Ch. De Chantemerle 18, 2007 Neuchâtel, Switzerland

New Members

The BSI would like to thank and welcome the following new members.

Eduardo Acosta	Carol Ellett	Mashairo Miyazaki	Tom Shirley
Hubert Albury	Annette Feaster	Barbara K. Moran	Arthur Smith
Andy Atkins	Gary Geiger	Pedro Monteir Nefo	Lorraine Stagnol
Hayward Bacon	Jan Haft	Roxanne Mouton	Gerry Stansfield
Cheryl Basic	Kim Hamilton	Fumito Nishida	Sugar Mill Gardens
Josef Bauer	Jack Henning	Yujiro Nogi	Yugo Takeuchi
Daurel Brown	La Vonne Hoffman	Pamela Paulsen	Jim Thompson
Donald Busch	Del Jack	Jean Pettibon	Horumi Veda
Jerry B. Calhoon	Kristine Kaney	Sylvia Plever	Maria Das Wanderley
Ken Campos	Ralph Kolsiana	Linda Ridge	Wes Williams
Alain Cassan	Jeronimo Lancerio	Peter Riggs	Edward Woods
Mary Cimo	Steven Larson	Steven Ruecker	Min-Yoeh Wu
Lilly Condes	Donald MacClellan	Robert Santos	Thicomperon
Guadalupe Cota	Bev Manber	Joseph Scott III	Yamsaard
Don Damer	Kimberly Maness	Beryl Sheasby	
Larry Davis	Alice Martin	Kolber Shelley	
Beatriz De Matteo	Sandra Mason	William Sherwood	
Norma Diaz	Sally Michel	Jacke Shipwash	



Figure 22.
Guzmania glomerata Mez & Wercklé; immature inflorescence (left),
mature flowering inflorescence (right)



Figure 23.
Guzmania donnell-smithii
Mez ex Donnell Smith



Figure 24.
Guzmania rosea L.B. Sm.



Figure 25.
Guzmania sprucei
(André) L.B. Sm.

Highlights of the Houston Board of Directors Meeting

The following is an unofficial summary of decisions made at the Bromeliad Society International Board of Directors meeting held in Houston, Texas on July 7, 1998.

Minutes of the annual general meeting of the of Bromeliad Society, Inc.

The meeting of the Bromeliad Society International was called to order by the Vice-President, Thomas Wolfe at 09:05 AM. There were no business matters presented for consideration and the meeting was adjourned at 09:07 AM.

The Board of Directors of the Bromeliad Society International was called to order by the Vice President, Thomas Wolfe at 09:10 AM. The following officers, directors, and Committee Chairmen were in attendance:

John Atlee	Peggy Bailey	Don Beadle	Harvey Beltz
Joyce Brehm	Doris (D.D.) Bundy	Don Garrison	Clyde Jackson
Carolyn Schoenau	Dan Kinnard	Pamela Koide	Hattie Lou Smith
Bill Soerries	Thelma O'Reilly	John (Jack) Reilly	Jacqui Watts
Thomas Wolfe	Rolfe Smith	Charlien Rose	Gene Schmidt

President Jerry Raack and Chet Blackburn were excused due to family emergencies. Keith Golinski and Sally Thompson had been excused prior to the meeting.

1. The official name change to the Bromeliad Society International is in the final stages of completion. President Raack has the required forms and they need only be presented to the California Secretary of State where the BSI is incorporated.
2. Reimbursement of \$466.37 requested by the Judges Certification Committee was approved with restatement of the requirement that proposed handbook revisions must be reviewed by the Board of Directors before further work is initiated.
3. Tom Wolfe will ask David Fulkerson about the possibility of using the Wally Berg video in the slide library.
4. Voting by e-mail was approved by the Board of Directors in an e-mail and telephone vote and the wording was added to the by-laws revision dated 1997.
5. More than 200 new members were recruited into the BSI since the last board meeting with Tropiflora (Dennis and Linda Cathcart) leading the way. A thank-you letter was written and signed by the Board of Directors present and sent from this Board meeting.
6. Credit card receivable has been added to the balance sheet. There have been

a few problems since the institution of credit card acceptance but nothing major. As a whole it is working very well.

7. Back issues of the Journals that were removed from storage in Orlando were written off as inventory resulting in a substantial decrease in the inventory.
8. The financial statement shows a gain of \$7,060.00 due primarily to increased membership. Some concern was expressed that when it comes time for renewal, many of these new members recruited during the enthusiasm of the membership drive might not renew and an evaluation of this potential problem will be necessary at the 1999 board meeting.
9. Publication sales continue to drop. However, they should increase now that we have new publications to promote. Some discussion was held concerning the potential for sale of non-BSI publications. The incoming Publications Chair will be asked to evaluate the possibility.
10. The Cultural Brochures were reprinted at a cost of \$5.20 per hundred. There was a discussion of the price to charge the members. These will be sold to the membership at \$6.00 per hundred, including postage. If the purchaser wants them more quickly than parcel post shipment, they will pay the extra postage.
11. Affiliates Chairman Gene Schmidt has sent correspondence to all of the societies believed to be affiliated requesting address confirmation, affiliation information and copies of the newsletters. A plan is under consideration to have all affiliates re-affiliated at the WBC 2000. Gene will work on getting the information from each society.
12. Ellen Baskerville has resigned as Cultivar Registrar and the job will be assumed by Don Beadle. The board commended Don for the work he has done on the new Cultivar Registration Handbook which was released at the Houston Conference. The first 200 copies of the Cultivar Registration Handbook have sold out. The book will be copyrighted by the BSI and and ISBN number will be acquired.

The BSI will no longer sell hybrid seed. It was suggested and agreed that seed should be one of the items sold at the next World Conference.
14. A new slate of Officers were elected and took office immediately following the board meeting. Thomas Wolfe was elected as President, Hattie Lou Smith as Vice-president. Re-elected to their offices were Clyde Jackson as Treasurer, Carolyn Schoenau as Membership Secretary, and Chet Blackburn as Journal Editor. New committee chairmen selected were Don Beadle as Cultivar Registrar and Betty Prevett as Judges Certification Chair. All other committee chairmen were re-elected. Secretary Joyce Brehm requested to be replaced in 1999.

15. The following directors were declared elected as they were unopposed in their region: Joyce Brehm (California), Don Beadle (Florida), Hiroyuki Takizawa (International), Harvey Beltz (Louisiana). Allyn Pearlman was subsequently elected as director from Texas.
16. Dan Kinnard reported that the BSI web page is being visited at the rate of between 500 and 600 "hits" a month.
17. Clyde Jackson reminded everyone that funds collected at the rare plant auction intended for the Bromeliad Identification Center need to be passed through the BSI Treasurer and accounted for. This was not done after the Orlando conference but sent directly to the BIC instead. The by-laws on page 18, states in section a) "authorize the treasurer to accept contributions to BIC, to deposit and account for them, and to pay them to the BIC director on his request. Such funds may not be commingled with BSI funds". In addition to funds derived at the rare plant auction, donations to BIC have been sent to the Membership Secretary, Editor, and Treasurer throughout the year and all of these must be forwarded to the BSI Treasurer for control purposes and dispersal to BIC.
18. Status of projects assigned at 1997 board meeting.
 - a. Society name change: Jerry Raack will complete this.
 - b. Bylaws changed: The required changes to the 1997 Bylaws have been made and were issued to the officers
 - c. Reprint cultural sheets: Done
 - d. Prepare new glossary: Done
 - e. Establish report templates: Done
 - f. Initiate credit card acceptance: Done
 - g. Purchase Mulford Foster and Morris Henry Hobbs plaques. Done
19. Committee chairs were reminded that copies of their annual report should go to all officers and directors prior to the board meeting, not just the President.
20. San Francisco was selected to host the 2000 WBC. This will be the 50th anniversary of the BSI and the first World Conference managed by the BSI as opposed to an affiliate. A motion passed that the hosting affiliate would be allocated 50% of the first \$10,000.00 of net profit up to a maximum cap of \$5,000.00.
21. Editor Chet Blackburn will prepare a fifty-year index of Journal articles to be sold at WBC 2000. He is to submit a budget proposal at the 1999 board meeting.
22. A motion to increase annual dues failed. A motion to offer reduced rates for multi- year memberships (renew for more than one-year at a time) was passed. Effective January, 1999 two-year renewals will be reduced by \$2.00 and three year renewals by \$5.00.

23. The board directed the Membership Secretary to publish a new membership directory at a cost not to exceed \$4,000.
24. The incoming president will appoint a committee to study the establishment of a BSI archive.
25. Proposals for by-law changes:
 - a. Recommendation to add to the membership secretaries job description, Standing Rule 3, 6.h) the same wording as the editor's job description, Standing Rule 3, 5.g). "receive an allowance for travel and vehicle operation in the amount decided by the board." Motion passed
 - b. Recommendation to increase the term of service for directors. This proposal, made by Jacqui Watts. President appointed a committee to pursue dividing the international regions into districts similar to the U.S. Regions and appointing directors. Discussion of this revealed that Australia should have 3 directors according to the numbers of Members they have.
 - c. Recommendation to change the requirement for all officers of an affiliated society be BSI members. After a long discussion this requirement was left in the bylaws even though it is understood that we cannot enforce, or police this requirement.
 - d. Recommendation by Jerry Raack, that Standing Committees, Article VI, A. c) be changed to. "Each chairman shall serve for two years. Their tenure shall begin on January 1 of the year following their election". Motion carried by a show of hands 8 to 7. This will effect the wording of section d) of this article, as well. This was approved.
 - e. Recommendation to change Article VI, Section B, 1.b) from: "appoint at least four other voting members"; to "appoint at least five other members." Motion died for lack of a second.
 - f. Recommendation to change article IV, section 4. A) from: "Their tenures shall begin at the conclusion of the meeting at which elected". To January 1 of the following year was discussed. This appears to be in conflict with "Roberts Rules of Order". Motion not carried.
 - g. Recommendation to remove the statement by Standing Rule 6, "description of duties was not received". This description was received in 1996. Carried
 - h. Recommendation that we add to Standing Rule 6, article g).(4). "Revisions of the Handbook for Judges, Exhibitors and Affiliates will not be published without the approval of the Board of Directors. The Board approved this action.

- i. Recommendation to remove the edition number and date from Standing Rule 6, section a). to reflect the "latest edition of the *Handbook for Judges, Exhibitors and Affiliates* carried by the Board.

26. The 1999 annual board meeting will be held in Longwood Gardens in Philadelphia. Rolfe Smith to coordinate with the President.

Board meeting adjourned at 4:30 PM

FINANCIAL REPORTS

Balance sheet as of 12-31-97

CURRENT ASSETS	1996	1997
Cash – Gen Fund Spec	40,459.59	47,550.14
Cash – Life Membership Spec	15,588.46	12,923.04
Cash – Padilla Endowment	4,966.30	5,326.55
Cash – Dayton State Bank	11,972.93	9,128.88
Cash – WBC Funds	2,500.00	-----
Total Cash	75,487.28	74,928.61
ADVANCES		
Seed Fund	200.00	-----
WBC – Houston 1998	-----	2,500.00
Total Advances	200.00	2,500.00
FIXED ASSETS		
Equipment – Editor	411.89	411.89
Equipment – Member Secty.	210.94	210.94
Library & Equipment	5,728.39	-----
(Less) Depreciation	(-2,089.54)	-----
Library	-----	3,477.00
Total Depreciated Assets	4,261.68	4,099.83
OTHER ASSETS		
Investments – Unisys 2 sh.	200.00	-----
Investments – USTN	14,665.65	14,665.65
Credit Card Receivables	-----	1,251.95
Inventory – Awards	5,016.58	4,006.00
Inventory – Publications	23,563.28	17,941.00
Inventory – Membership Sec.	1,975.00	360.00
Inventory – Editor	67,763.00	4,676.00
Total Other Assets	113,183.51	42,900.60
LIABILITIES		
BSI – Memorial fund general	125.00	125.00
Accruals	5,350.00	753.90
WBC Credit Card Reserves	-----	328.95
Total Liabilities	5,475.00	1,207.85
NET WORTH	187,657.47	123,221.19

NOTE: The decrease in Inventory of \$71,000 reflects discarded back issues and is not shown in income in any manner except on balance sheet.

INCOME STATEMENT FOR 1997 COMBINED WITH 1999 BUDGET

(Revised-Denver)

	1997 Actual	1998 Budget	1999 Budget
RECEIPTS			
Advertising – Journal	4,660.00	2,500.00	3,000.00
Back Issues	87.60	125.00	100.00
Color fund	4,244.00	2,200.00	4,000.00
Cultural sheets	119.00	160.00	120.00
Donations – BSI	3,221.50	300.00	3,000.00
Interest – General	3,218.80	3,200.00	3,200.00
Interest – Endowment	1,465.48	1,500.00	1,500.00
Judges certification	125.00	100.00	100.00
Judges cert. pins	487.50	-----	200.00
Medallions – Trophies	1,127.55	500.00	1,200.00
Memberships	38,930.90	34,500.00	40,000.00
Memberships – Board induced	-----	5,000.00	-----
Memberships – Life	1,500.00	750.00	1,000.00
Postage prepaid	4,007.74	2,150.00	4,000.00
Publications	6,238.04	10,000.00	8,500.00
Seed fund	232.92	700.00	300.00
Slide programs	275.00	200.00	200.00
Deficit – general funds	-----	2,285.00	6,167.00
Totals Receipts	69,941.03	66,170.00	76,587.00
RECEIPTS	1997 Actual	1998 Budget	1999 Budget
Affiliated Societies	-----	200.00	200.00
Bank charges	69.31	75.00	75.00
Credit card expenses	140.00	500.00	500.00
Cultural sheets	-----	520.00	520.00
Director/BSI meetings	291.67	750.00	600.00
Grants	1,100.00	2,000.00	2,000.00
Journal – allowance	3,500.00	3,000.00	3,000.00
Journal – mail service	7,723.33	8,000.00	9,000.00
Journal – miscellaneous	912.27	1,000.00	1,000.00
Journal – printing & photos	32,153.49	32,500.00	33,000.00
Journal – envelopes	-----	-----	1,500.00
Journal – storage	530.00	-----	-----
Judges certification – expenses	36.00	275.00	300.00
Marketable merchandise – WBC	265.00	1,000.00	-----
Medallions – trophies	2,800.00	-----	4,500.00
Membership – contract	5,050.00	4,800.00	4,800.00
Membership – expenses	4,652.34	4,200.00	4,500.00
Nonrecoverable costs	-----	1,300.00	-----
Nominations committee	-----	100.00	100.00
Publications	2,145.47	2,250.00	1,900.00
Roster	-----	-----	3,892.00
Secretary expense	200.00	300.00	300.00
Slide program	58.77	300.00	300.00
Treasurer expenses	172.95	100.00	100.00
Glossary	-----	2,000.00	1,000.00
Web site	880.00	1,000.00	1,000.00
Write off accounts	200.00	-----	-----
WBC 2000	-----	-----	2,500.00
Total Expenditures	62,880.60	66,170.00	76,587.00

Recent Gifts to the Society

The BSI would like to thank the following individuals and organizations for contributions to the color fund, Bromeliad Identification Center and/or the BSI.

John Anderson	La Vonne Hoffman
C. Beltz	Jacksonville/Gainesville Bromeliad Society
Joan Berryman	James Jones
Chet Blackburn	Verdia Lowe
John Boardman	Sylvia Méluzin
Bromeliad Guild of Tampa Bay	Sally Michel
Bromeliad Society of Central Florida	Thomas Moran
Lolita Brooks	Michael Newell
Caloosahatchee Bromeliad Society	Pam Paulsen
Mary R. Cimo	Ann Stuckey
Nat De Leon	Tropiflora Nursery
Leonard Dolatowski	Maria Das Wanderley
Jonathan Ertelt	David Whipkey
Dana Field	Charles Witmore
Annie Finkelstein	Kenneth Woods
Melvin First	
Larry Hill	

All Aboard For San Francisco

The Hyatt San Francisco Airport Hotel will be the site of the 14th World Bromeliad Conference. Work is underway to make this one of the best conferences ever. The conference will celebrate the 50th anniversary of the BSI and there will be exhibits of a historical nature allowing BSI members to come and explore the BSI's roots, or perhaps more appropriately in our case, the BSI's holdfasts.

We have been able to negotiate a room rate of \$109 per night, which is somewhat higher than many past conferences, but is an unusually low rate for San Francisco. However, that \$109 rate is per room, and applies for up to four occupants, so it is possible to attend for around \$30 per night if you're willing to bunk with others. Just take care not to pick someone who is going to be buying hechtias, bromelias, and dyckias to store next to your bed. Complimentary transportation to and from the San Francisco International Airport will be provided.

To help get an early start in your planning, listed below is the tentative schedule for the conference.

Tuesday, June 27	BSI board meeting
Wednesday, June 28	Judge's school and Conference setup
Thursday, June 29	Registration, show entry placement, sales setup
Friday, June 30	Registration, judge show, welcome party
Saturday, July 1	Show and sales, seminars, meetings, rare plant auction
Sunday, July 2	Seminars, meetings, banquet
Monday, July 3	Seminars, meetings, late afternoon break-down
Tuesday, July 4	Complete break-down (referring to displays, not necessarily the working staff.)

Note that the main days of the conference will be Saturday, Sunday, and Monday for this conference and not Friday, Saturday, and Sunday as is the usual case. Tours will be held throughout the conference.

BSI members residing within the United States have only until January 1, 1999 to take advantage of the low early registration rates. **Because of the slow and unpredictable nature of surface mail, that date has been extended until February 1, 1999 for BSI members who live outside of the U.S.** Don't hesitate! Send a copy of the registration form (found on page 282 of this issue of the Journal) in immediately!

Start sticking your pennies in the bank...you won't want to miss this one!

Cultivar Corner

Ellen Baskerville

Pictured to the right are two attractive new cultivars. *Neoregelia* 'Lou Wilson' is a cultivar of *Neoregelia* [(*carolinae* x *concentrica*) x 'Big Blue'] X ('Big Blue' x *concentrica*). Registered by R. L. Frasier in 1998, the plant has wide variegated and mottled leaves with apple-green leaf margins and a cup with flushes of rose-pink when coming into flower. The leaves have lots of dark purple spotting and concentric barring. Leaf tips are upturned and apiculate. The plant was named to honor author and grower Dr. Louis Wilson of Punta Gorda, Florida.

The lower plant is *Orthophytum* 'Stardust', registered by Michael Kiehl in 1995. The parents are *Orthophytum gurkenii* x *O. lemei*, and it most resembles *O. gurkenii* but has 6 inch rigid, slightly recurving leaves tapering to a point, and brown foliage almost obscured by dense, silvery scurf both above and below. The 24 inch inflorescence also resembles *O. gurkenii*. Flowers are white.

New Directors Elected

Congratulations to the following individuals who were recently elected or re-elected to the BSI Board of Directors for terms beginning in the year 1999 and running through 2002.

California	Joyce Brehm
Florida	Don Beadle
Texas	Allyn Pearlman
International	Hiroyuki Takizawa, M.D.
Louisiana	Harvey Beltz

Our thanks go to outgoing directors Pamela Koide, Don Garrison, and Jacqui Watts, all of whom were quite active in board activities over the last three years and who helped initiate such projects as credit card acceptance and our successful membership drive to turn a declining membership around. The BSI grew by more than 200 new members last year, reversing a downward trend in membership and finances over the last few years.



Figure 26.
Neoregelia 'Lou Wilson'

Photograph by R.L.Frasier



Figure 27.
Orthophytum 'Stardust'

Photograph by Michael Kiehl



Golden Anniversary
The Bromeliad Society International
World Bromeliad Conference

Registration form
San Francisco, CA

Hyatt Regency Hotel
June 26 through July 5, 2000

Registration Rates are: \$95.00 Until January 1, 1999

\$115.00 January 2, 1999-January 1, 2000

\$130.00 January 2, 2000-June 1, 2000

\$150.00 June 2, 2000 and at the door.

Please print or type (we want to be able to reach you).

Name _____

Your address _____

City _____ State _____ Country _____

Zip or Country code _____

Telephone (Include country or area code) _____

Name On badge(s)? (please print)

1. _____ BSI voting member _____ (this will be checked)

2. _____ BSI voting member _____ (this will be checked)

3. _____ BSI voting member _____ (this will be checked)

Your BSI Affiliate Name? _____ (if applicable)

Amount (per registrant) _____ Check/Visa/Master Card (circle one) # _____

Credit Card Expiration Date _____

Signature as it appears on your card _____

Add \$15.00 per registrant if not a BSI voting member. (Do not pay dues and receive *The Journal of The Bromeliad Society*)

Send this form and payment to: Carolyn Schoenau, P.O. Box 12981, Gainesville, FL 32604

The registration fee is 70% refundable until June 15, 2000. After that no refund will be given (except in cases of illness or death)

Advertising space in the *Journal of the Bromeliad Society* is available at the following rates:

	Rates ¹	One Issue	Six Issues
ALL ADVERTISING	Full Pages	\$125.00	\$625.00 ²
PREPAID.	1/2 Page	70.00	350.00 ²
Advertisers to provide any art work desired.	1/4 Page	45.00	220.00 ²
	1/8 Page	25.00	125.00 ²

¹ Cost for color ad furnished on request. ² Plus \$25.00 per ad change.

Advertising is presented as a service to our membership and does not necessarily imply endorsement of the product. Please address all correspondence to: Editor—Chet Blackburn, 720 Millertown Road, Auburn, CA 95603.

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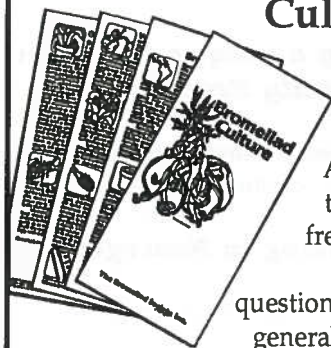
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Dear Editor:

I thought your readers might enjoy this picture of a rather unusual culinary masterpiece that greeted banquet attendees at the recent Bromeliad Extravaganza '98' hosted by the Florida East Coast Bromeliad Society. The 6 foot (2 meter) alligator was created by Dan Viti of Daytona Beach using pineapples, watermelons, strawberries, kiwi fruit, and hard-boiled eggs (take a close look at those teeth!).

Jay Thurrott