

JOURNAL

OF THE BROMELIAD SOCIETY

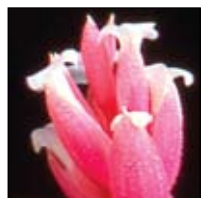
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Covers

Front—*Aechmea recurvata* painted by Margaret Mee. The original of this work is currently on sale in London for £12,500 - see page 278

Back—details of the inflorescence of the paratype of newly described *Orthophytum diamantinense* (Leme 5835). Photo by Elton Leme.

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Editorial

Whilst we are still in urgent need of a new Webmaster for the BSI site., we can happily announce a replacement for Cultivar Registrar Derek Butcher. Geoff Lawn will be taking over from Derek in the New Year, and we hope to bring you more details in our next issue.

This Issue

Scientific

Following years of research, Renate Ehlers and Walter Till have described *Tillandsia minasgeraisensis*. Named for Minas Gerais in Brazil, the plant is in a group with *T. recurvifolia* and *T. pobliana*. On page 250 Walter Till brings us the story of *Vriesea speckmaieri* in Northern Venezuela, and publishes a correction to the official description in Smith and Downes of closely-related *V. laxa*. next, on page 255, Harry Luther and Karen Norton describe something of a rarity, a stream-dwelling *Guzmania pseudodissitiflora*. Back to Brazil, Elton Leme introduces *Orthophytum diamantinense* in the sub-complex mello-barretoii on page 257, and then on page 269 a new *Quesnelia conquistensis*. We conclude the scientific section with a number of book reviews from Jason Grant.

Cultivation

We start on page 273 with a discussion by Jerry Krulik of some different forms of “Spanish Moss,” based on an article published originally in the Saddleback Valley Bromeliad Society’s *Pup Talk*.

Derek Butcher provokes us with some “musings” about whether we should have a cultivar Register, and if so what purpose it has. This piece was written some time before he decided to resign as Cultivar Registrar, and does end on a positive note. Derek raises quite a few issues that we can look forward to his replacement, Geoff Lawn, addressing in the future! On page 277 Harry Luther shows us a spectacular view of *Bromelia flemingii*, a worthy landscaping subject!

General Interest

Margaret Mee, whose painting graces our front cover, died prematurely some 20 years ago. A collection of her works and personal artifacts are currently on sale in London, see page 278.

Leo Dijkgraaf brings us part 3 of his dedicated research into early bromeliad illustrations, this time concentrating of the monthly *Gartenflora* published in Germany.

Finally, since this is supposed to be the season of peace and goodwill, on page 283 we have a heart-warming story by renowned bromeliad grower Jules Chantrier set during World War 2. This was originally published in the very first volume of *The Bromeliad Society Bulletin*, precursor of this journal, in 1951, under the editorship of Mulford B. Foster. On the next page is a letter we received from Mulford Foster’s great granddaughter, letting us know of a huge collection of his works currently held at the University of Central Florida.

Letters

I am Mulford Foster's great granddaughter and involved in continuing the effort to keep his memory alive. His works could be significant to a younger population of artists and naturalists interested in bromeliads as they are timeless. Mulford's influence in Orlando during his life was significant and warrant preservation. I have read a large portion of his works and I'm sure you are aware that his art work is on display at the Harry P. Leau Gardens. I believe an article about the archival work at UCF remains relevant to researchers and your readers today. The "article" I have written is 238 words in length. I am interested in submitting this to your newsletter.

"Father of the Bromeliad" Returns to UCF Through His Works

The largest personal collected works of its kind in the United States is currently in the special collections section of the University of Central Florida after being donated by Michael Spencer in 2007. The contents will interest readers who are familiar with Mulford Bateman Foster (1888-1978), a former Orlando, FL resident. An accomplished artist, he also had a wide range of interests and was known for his love of bromeliads.

Perhaps less remembered today is his pivotal role in bromeliad research. The "Father of the Bromeliad" was a label given to him. He was instrumental in bringing the bromeliad to the United States. Likewise, he contributed widely to the knowledge of the plant species. Many bromeliad plants found today are named after various Foster family members.

In tribute, his wife, Racine Foster, set forth to archive his many achievements, assisted by Michael Spencer. As a result of her tireless efforts there exists an extensive personal compilation of material. It contains his articles and books written for both lay and professional journals, personal correspondence and both slides as well as actual pieces of Mulford's art. The works aptly called the Michael A. Spencer Bromeliad Research Collection 1910-1990, contains only a part of the collected works and memorabilia of Mulford B. and Racine Foster as it pertains to their bromeliad work. The university is still in the process of cataloging this subject matter. More information can be found at <http://library.ucf.edu/SpecialCollections/FindingAids/Spencer.xml>

Diane Racinae.

Tillandsia minasgeraisensis Ehlers & W. Till spec. nov.

R. Ehlers and W. Till

In 1999, Eberhard Bludau, Köln, and Wolfgang Schindhelm, Berlin, collected the plant "spec. Minas Gerais" in Minas Gerais west of Diamantina near Conselheiro Mata, Brazil. Similar plants were imported in 1990 from Minas Gerais by Paul Isley III (California) and these were examined by Renate Ehlers.



Figure 1. *Tillandsia minasgeraisensis* inflorescence



Figure 2. *Tillandsia recurvifolia* var. *subsecundifolia* inflorescence

In 1991 and 1992 plants of the "spec. Minas Gerais" flowered in collection Ehlers in Stuttgart and did not key out. They showed characters similar to *Tillandsia recurvifolia* and *T. pobliana* as well and it was evident that it was an undescribed species. But it was difficult to come to an agreement on which species the plant is most closely related to. Harry Luther sent copies of the type of *T. bilaireana* Baker, which he thinks is different from *T. pobliana* as it seemed similar with the species from Minas Gerais. Walter Till compared *T. minasgeraisensis* with the type of *T. bilaireana* in Paris but found that this plant shows quite a number of different characters: dense inflorescence, floral



Figure 3. *Tillandsia minasgeraisensis*.

bracts narrower, glabrous, strongly nerved and only at extreme apex lepidote, the sepals narrower, acute, glabrous, the posterior ones 5,5 mm connate. He also agreed with Luther that *T. bilaireana* is different from *T. pobliana* and could be an own species, but unfortunately there is no living material.

Investigating the plant from Minas Gerais over the years both authors now think the plant is different enough to be described as a species. Walter Till found the plant on flat rocks. He mentioned that *Tillandsia pobliana* and *T. recurvifolia* always grow epiphytically whilst *T. minasgeraisensis* differs ecologically as a saxicole.

Tillandsia minasgeraisensis Ehlers & W. Till sp. Nov. **Type:** Brasil, Estado Minas Gerais, without exact locality, growing on flat rocks leg E. Brewer s. n., imported by D. Cathcart, Sarasota, Florida, flowered June 1991 in collection Ehlers. Holotype HB. **Paratypes:** plants (s. loco) sold 1994 by Pfister Brazil (WU); plants collected 1990 by Eberhard Bludau Köln (WU); Estado Minas Gerais, Mun. Diamantina, 9 km along the road from Guinda to Conselheiro Mata, 1,230 m elevation, 31. 1. 1995, leg. W. Till 11091, terrestrial on rocks in Campo rupestre area (WU).

A *Tillandsia recurvifolia* HOOKER bracteis florigeris suborbicularibus, magis inflatis, densiter pruinosis, sepalis longioribus latioribusque, obtusis, adaxialiter breviter connatis et carinatis, glabris et petalis longioribus angustioribusque differt.

Plant stemless, flowering 10-15 cm high. **Leaves** many, forming a dense rosette, more or less secund and twisted, rigid, to 10 cm long, the adaxial ones with asymmetrical keel, densely covered with cinereous adpressed trichomes; **sheaths** 1.5-2 cm long, 1-1.2 cm wide, ovate, gradually merging into the blade, adaxially densely covered with brown-centered trichomes, abaxially with silvery subpruinose trichomes; **blades** to



Figure 4. *Tillandsia recurvifolia*, Bolivia.

10 cm long, ca. 8 mm wide at the base, narrowly triangular, slenderly attenuate, channeled, involute, cinereous lepidote, the margins covered with asymmetric trichomes. **Peduncle** 5-7 cm long, curved, slender, covered by few imbricate peduncle bracts, the lower ones leaf-like, with long erect blades, the upper ones red, with elliptic sheaths and narrowly acuminate blades. **Inflorescence** exceeding the rosette, to 6 cm long, 3-3,5 cm wide, elliptic, simple, with to 12 spirostich, sessile flowers, lax at the base, the apical ones more densely arranged, the green rhachis slightly visible; **floral bracts** equalling the flowers, the apical ones shorter than the flowers, 2-2.3 (to 3) cm long, 1.9-2.2 cm wide (often nearly as wide as long), broadly ovate or elliptic, the lower ones acuminate, the upper ones acute, inflated, spreading and exposing the sepals, membranaceous, nerved, the adaxial ones glabrous, the abaxial ones coraline, densely and finely pruinose lepidote all over; **sepals** 1.4-1.7 cm long, 7-9 mm wide, ovate, obtuse, equally connate for 2-3 mm, the adaxial ones more or less carinate, glabrous or bearing at extreme apex few large trichomes, nerved, membranaceous with hyaline margins, light green; **petals** to 2.6 cm long 3-4 mm wide (ca. 2 mm at the base), ligulate, without any distinct blade, forming an erect tubular corolla,

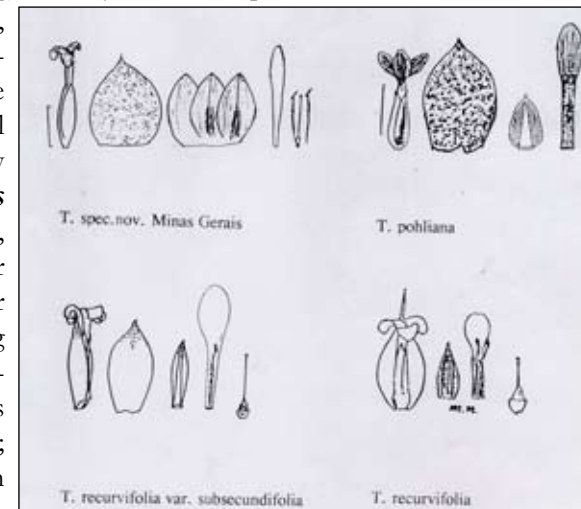


Figure 5. *Tillandsia minasgeraisensis* complex, drawing of details.



Figure 6. *Tillandsia recurvifolia* var. *subsecundifolia* at Vila Velha. Photo by H. Heidt.

corolla-throat open, the tips very slightly crenate, and curled back, white; **stamens** deeply included, less than 1/2 as long as the petals, filaments 11-12 mm long, equal in length, flat, once-plicate in the middle, anthers ca. 3 mm long, basifixed, yellow; **pollen** yellow; **style** ca. 9 mm long, white; **stigma** very small, not much wider than the style, lobes erect, yellow-white; **ovary** ca. 3 mm high, 2.5 mm wide, triangular in cross section, green.

Tillandsia minasgeraisensis seems to be related to *T. recurvifolia* Hooker (syn. *T. meridionalis* auct. non Baker) and *T. pobliana* Mez but differs from them by the following characters:

From *Tillandsia recurvifolia* Hooker: floral bracts nearly as wide as long, more inflated, densely pruinose lepidote from apex to the base, coralline (not pink), sepals longer, much wider, obtuse, short connate, the posterior ones carinate, glabrous, petals longer but less wide, without any distinct blade.

From *T. pobliana* Mez: plant smaller, rosette secund, leaves shorter and narrower, pruinose lepidote, the margins with asymmetric trichomes. The flowers mostly exceeding the floral bracts, these not green or slightly pinkish and glabrous towards the base but coralline-red and pruinose lepidote from apex to base. Sepals longer but narrower, obtuse and not apiculate, membranaceous (not thickly coriaceous), glabrous or lepidote only at extreme apex, the posterior ones slightly carinate, petals longer (to 2.6 cm), the blades curled back and slightly crenate. Stamens deeply included, not exceeding the petal claw.

Acknowledgements

Thanks to a lot of friends who helped with discussions and co-operation. Many thanks to Derek Butcher, Len Colgan, Eric Gouda, Elton Leme and Harry Luther.

References:

- Baensch, U. and U. Baensch (1994). *Blühende Bromelien*. Nassau, Tropic Beauty Publishers.
- Isley, P. T. (1987). *Tillandsia*. Gardena, CA, Botanical Press.
- Rauh, W. (1990). *Bromelien: Tillandsien u.a. kulturwürdige Bromelien*, 3. Ed. Stuttgart, E. Ulmer.
- Shimizu, H. (1993). *Tillandsia Handbook*. Tokyo, Japan Cactus Planning Co. Press.
- Smith, L. B. and R. J. Downs (1977). *Flora Neotropica Monograph No. 14, Part 2: Tillandsioideae (Bromeliaceae)*. New York, Hafner Press.



Figure 7. *Tillandsia minasgeraisensis* collected near Diamantina by E. Bludau and W. Schindhelmin.

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Vriesea speckmaieri – a New Lower-altitude Cloud Forest Species from Northern Venezuela.

Walter Till.¹

In December 1998 Dipl.-Ing. Manfred Speckmaier of Caracas and Dr. Winfried Meier of the University of Freiburg, Germany, climbed the mountains west of the city of Valencia to study the local cloud forest vegetation (fig. 1). Along a gas pipeline they passed a small memorial cross adorned by a small flowering bromeliad which draw their attention. M. Speckmaier was so fascinated by this plant that he started an intensive search for it. At the crest they reached a primary cloud forest rich in epiphytes which they described as follows:

“This cloud-forest owes [sic] its existence most probably due to a special topographic situation known in this way also from the western part of the capital of Caracas. In both cases there are significant depressions or, better said, valleys opening their way through the east to west running Cordillera de La Costa connecting the coast with the level of the cities. These two valleys are not only used by highways to reach two of the most important ports of the country (La Guaira and Puerto Cabello respectively [sic]), they are also used by the north-eastern trade winds carrying the saturated humid air from the sea up to the country behind the costal cordillera with the result that condensation and fog occurs at rather low elevations. In case of the Fila El Café this leads to rather humid hillfood vegetation (this is where the endemic *Tillandsia funckiana* Baker var. *recurvifolia* Blass ex Rauh and the *Pitcairnia orchidifolia* Mez occur) and a very wet crestral forest, even if this “fila” is located in the second row behind the costal cordillera.” (see also Meier 2002).

Plants very similar to the one on the memorial were common in the canopy region but unreachable. Finally M. Speckmaier was lucky to collect fallen individuals, one of them in flower (fig. 2). The inflorescence was few-flowered and sub-distichous. Some individuals had been brought into cultivation and have flowered repeatedly but with more numerous flowers in perfectly distichous arrangement (fig. 3). All attempts to identify the plant have failed and it is therefore here proposed as a new species of *Vriesea* sect. *Vriesea*.

Vriesea speckmaieri W. Till, spec. nov., figs. 2-4.

A *Vriesea laxa* (Griseb.) Mez, cui affinis, foliis longioribus angustioribusque, pedunculo elongato et decurvato, demum adscendenti, bracteis florigeris internodiis solum triplo longioribus et sepalis majoribus (38 vs. 28 mm) differt.

¹ Department of Plant Systematics and Evolution, Faculty of Life Sciences, Rennweg 14, A-1030 Vienna, Austria.



Figure 1. Cloud forest vegetation at the type locality.

Type: Venezuela, Estado Carabobo, Distrito Valencia, Fila el Café west of Nguanagua, ca. 1100 m a. s. l., 68°04'W, 10°16'N, 31. 12. 1998, leg. M. Speckmaier s. n., flowered in cultivation December 2007: VEN (holo), WU (iso).

Plant forming rosettes of about 13 - 17 leaves, rosettes in groups of up to ten individuals, slenderly infundibuliform. *Leaves* medium green, shining, appearing glabrous but very minutely and laxly lepidote abaxially, abaxially distinctly nerved when dry; leaf-sheaths ovate, pale green, minutely lepidote with brownish trichomes, 6,5-7 x 3-3,5 cm, distinctly nerved when dry; leaf-blades linear, acuminate, 17-26 x 1,5-1,8 cm. *Peduncle* 17-22 cm long, decurved but ascending distally to bring the inflorescence in an oblique upright position, densely covered by peduncle bracts which nearly com-



Figure 2. Specimen of *Vriesea speckmaieri* that flowered in the field.



Figure 3. Type plant in cultivation.

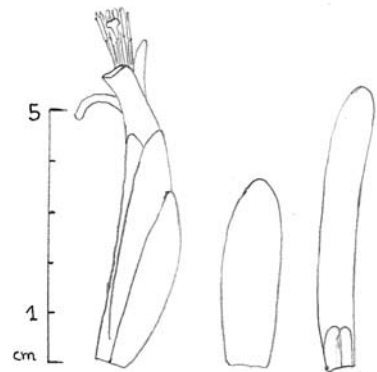


Figure 4. Flower, sepal and petal (from left to right)

pletely conceal the peduncle; peduncle bracts ovate, acute and apiculate, smooth but finely nerved when dry, minutely and sparsely lepidote. **Inflorescence** undivided, distichously flowered (rarely subdistichously), composed of about nine flowers, 12–13 cm long and 4–4.5 cm wide; flowers laxly arranged, spreading at an angle of about 45°, zygomorph, 6 mm very stoutly pedicellate; **floral bracts** 31–33 (–35) mm long, three times as long as the rachis internodes, dull red, dull green in the upper 1/3 – 2/3, obtusely carinate, smooth but nerved when dry except for the hyaline margin, apex cucullate; **sepals** 38 mm long, 11 mm wide (flattened), oblanceolate, obtuse, very obtusely carinate towards the apex, greenish, yellowish towards the margins, smooth but nerved when dry; **petals** linear, 55 x 7 mm, obtuse, yellow, green(ish) at the apex, with two obtuse 7 mm long ligules at the base, forming a tube but spreading apically; **stamens** distinctly exerted from the corolla; **filaments** all 50 mm long, ca. 0.7 mm wide, flattened, not thickened towards the apex, yellowish; **anthers** linear, subdorsifixed, slightly sagittate, with a thick green connective and dark brown to blackish thecae, pollen yellow; **ovary** conical, the lower 1/3 (= nectary tissue) sunk into the receptacle, yellowish, nectary tissue orange, the superior part 7 mm long; **ovules** white, the flat chalazal appendage about half as long as the ovule proper; **style** ca. 48 mm long, 1 mm wide, yellowish; **stigma** of the convolute-blade type, greenish, about 2.5 mm wide and 1 mm high, the lobes papillose, the stigma reaches about the middle of the anthers. Stamens and style forming a plane below the upper petal.

Vriesea speckmaieri differs from the closely related *V. laxa* by the longer and more narrow leaves, the much longer peduncle which at its base is curved downward and which curves upward only below the fertile part of the inflorescence, by the flower bracts which are only three times as long as the internodes, and by the longer sepals (38 vs. 28 mm). While the inflorescence of *V. laxa* seems to be uniformly yellow that of *V. speckmaieri* is bicolourous with red (partially green) flower bracts and yellow sepals.

The new species is illustrated in Oliva-Estevé (2006) on page 300 (bottom left) as unidentified and with incorrect locality: (“Cerro El Jefe”) in the English language editions. In Spanish language editions the locality is reported as “Cerro El Café”, Edo.

Carabobo “Cerro El Café” is the name of the most eastern summit of Fila El Café and hence just a little part of the range in question (M. Speckmaier, pers. comm.). The photo in fact was made by M. Speckmaier and is of the plant from Fila el Café. On the same page (on top) *V. laxa* is also illustrated. The leaves are shorter but wider, the peduncle is short and ascending and the completely yellow inflorescence hardly surpasses the leaves. This plant is in perfect agreement with Fendler 2166 (p. p.), the holotype of *Tillandsia laxa* Griseb. in the herbarium of the University of Göttingen (GOET), Germany.

I am using this occasion to make a correction in the nomenclature of *Vriesea laxa*. In Smith & Downs (1977: 1224) the name *Vriesea laxa* is ascribed to Mez (1896) assuming that Grisebach’s *Tillandsia laxa* published in Nachr. Georg-Augusts-Univ- Königl. Ges. Wiss. Göttingen would be from 1865 and hence a later homonym of the same binomial published in Fl. Brit. W. I.: 596 (Oct 1864). However, as confirmed by the publication dates in the library of the Göttingen University, the above mentioned “Nachrichten...” actually had been published on 13 Jan 1864 (G. Wagenitz, letter comm.) which makes *Tillandsia laxa* Griseb. (Jan 1864) a validly published name and Mez (1896) a combination under *Vriesea*. This explains the author citation in the Latin diagnosis above. *Tillandsia laxa* Griseb. (Oct 1864) is a later homonym, refers to *Tillandsia variabilis* Schltdl., and is without

Figure 5. Holotype of *Vriesea laxa*, courtesy Universität Göttingen.Figure 6. Google Earth map, with localities of *Vriesea speckmaieri* and *V. laxa*.

further nomenclatoric relevance. For the misinterpretation of the publication date of the “Nachrichten ...” see also Grant & Zijlstra (1998).

Acknowledgements.

I am very grateful to Dr. Jochen Heinrichs from the Albrecht-von-Haller-Institut für Pflanzenwissenschaften of the Universität Göttingen who kindly provided a high resolution digital image of the holotype of *Tillandsia laxa*.

Literature:

- Grant, J. and Zijlstra (1998). “An Annotated Catalogue of the Generic Names of the Bromeliaceae.” *Selbyana* **19**(1): 91-121.
- Meier, W. (2002). “Die Situation der Nebelwälder der Küstenkordillere Venezuelas im Internationalen Jahr der Berge 2002.” *Jahrb. Ver. Schutz Bergwelt* **67**: 109-138.
- Mez, C. (1896). *Bromeliaceae. Monogr. phan 9*. C. DC. Paris, Masson & Cie.
- Oliva-Esteve, F. (2006). *Mountain Plants of Venezuela: The Coastal Range, The Andes and the Tepuis Bromeliads*. Caracas, Oliva-Esteve Productions.
- Smith, L. B. and R. J. Downs (1977). *Flora Neotropica Monograph No. 14, Part 2: Tillandsioideae (Bromeliaceae)*. New York, Hafner Press.



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A New Guzmania from Southeastern Ecuador.

Harry E. Luther & Karen F. Norton¹

Most small species of *Guzmania* are epiphytes in wet forests. Many of the larger, tougher leaf species are terrestrials and lithophytes often in bright light. Only a few, like the following one, are streamside dwellers where they may occasionally be inundated at times of high water.

Guzmania pseudodissitiflora H. Luther & K. Norton, sp. nov.

A *G. dissitiflora* (André) L. B. Smith, cui similis affinisque, foliis numerosis expansisque, bracteis florigeris brevioribus differt.

TYPE: Ecuador. Zamora-Chinchipec, along the Rio Nangaritz, 800 m elev., lithophyte and rheophyte, *J. Kent legit.* Flowered in cultivation, SEL 2008-05, 1 April 2008, *H.E. Luther s.n.* (Holotype: OCNE; Isotype: SEL).

Plant a terrestrial, lithophyte or rheophyte, flowering 40 – 60 cm tall, spreading by 2 – 6 cm x 5 mm slender stolons. **Leaves** laxly spreading, 20 to 30 in number, 30 – 45 cm long, thin coriaceous; **leaf sheaths** elliptic, 2 – 3 x 1 – 2 cm, castaneous and dark punctate-lepidote especially abaxially; **leaf blades** linear, attenuate, 3 – 10 mm wide, nerved, scattered punctate-lepidote, bright green.

Scape erect, 25 cm x 5 mm, sparsely punctate-lepidote; **scape bracts** erect, imbricate, the lowest with a narrowly triangular, attenuate blade, the upper elliptic and apiculate, green (the lowest) to reddish (the upper), all exceeding the internodes, thin coriaceous, nerved. **Inflorescence** simple, subdensely 10 to 18 – flowered, 8 – 12 x 4 – 5 cm; **floral bracts** broadly elliptic, broadly acute, 19 – 26 x 15 – 22 mm, thin coriaceous, nerved, nearly glabrous, red or pink. **Flowers** spreading at 30° – 45° from the axis at anthesis,



Figure 1. *Guzmania pseudodissitiflora* flowering in cultivation. Photo by J. Kent

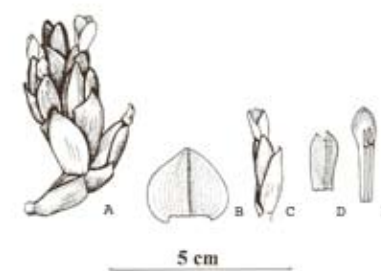


Figure 2. *Guzmania pseudodissitiflora*, H.E. Luther s.n., A. Inflorescence. B. Floral bract. C. Flower. D. Sepal. E. Petal and stamens. Illustration by Stig Dalström.

¹ Mulford B. Foster Bromeliad Identification Centre, Marie Selby Botanical Gardens, 811 South Palm Avenue, Sarasota, FL 34236 USA. email: hluther@selby.org

each with a 3 – 7 x 2 mm pedicel, opening during the day; *sepals* elliptic, broadly acute to obtuse, cucullate, 23 – 26 mm long, basally connate for 10 – 12 mm, thin, nerved, glabrous, yellow; *corolla* erect, spreading at the apex; *petals* spatulate, acute, 26 – 28 mm long, conglutinated into a tube for 20 mm, naked, yellow.

Paratype: Ecuador. Zamora-Chinchipe, Campamento Miazí, along the Rio Nanagaritza, forest on peaty soil, 900 m elev. 19 Feb. 1994, H. van der Werff, B. Gray, E. Freire and M. Tirado 13299 (SEL, MO).

This new species most resembles *Guzmania dissitiflora* from SW Colombia and NW Ecuador on account of its often rheophytic growth habit and barely exerted corolla but differs by its shorter floral bracts (19 – 26 vs. 25 – 35 mm long) which are red or pink not purple, and a leafier more spreading rosette of foliage. In addition, *G. dissitiflora* usually has its flowers more laxly arranged and spreading at nearly 90° from the axis at anthesis (vs. 30° – 45°).

Despite the apparent difference in arrangement of the inflorescence, figures 1 and 2 represent the same clone. The photo is of the plant flowered by J. Kent in California; the drawing is of the Holotype plant flowered and pressed at Selby. The Selby plant was grown a little harder with more light and for at least a short period, poor water. Flower shapes and sizes are the same, only density of the inflorescence differs.

This interesting species requires very moist conditions in cultivation to prevent the emerging leaves from sticking together. Public conservatories might try growing it near or even in water features.



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Studies on *Orthophytum* - Part IX. The “subcomplex mello-barretoï” and another new species.

Elton M. C. Leme¹

Illustrations by the author.

Within the genus *Orthophytum*, the “subcomplex mello-barretoï” was originally conceived with only two species: *O. mello-barretoï* L. B. Sm. and *O. eddie-estesii* Leme, both belonging to the complex of taxa with scapose inflorescence (Leme, 2004). Since then many new species have been added to the genus, including *O. schulzianum* Leme & M. Machado, *O. graomogolense* Leme & C. C. Paula and *O. piranianum* Leme & C. C. Paula which are also members of the “subcomplex mello-barretoï”. Now, with another new species described below, this subcomplex will total six taxa so I have included an identification key for the subcomplex mello-barretoï.



Figure 1. Inflorescence detail, holotype of *Orthophytum diamantinense* Leme.

Orthophytum diamantinense Leme, sp. nov. **Type:** Brazil, State of Minas Gerais, road Datas to Serro, ca. 1,100 m elev. Terrestrial in Campos Rupestres, 22 Nov. 1991, E. Leme 1825, P. Naboum & L. C. Marigo, fl. cult. Oct. 2007. Holotype: HB.

A *O. mello-barretoï* L. B. Sm., cui affinis, laminis foliorum longioribus, basin versus manifeste crassis, subtus conspicue nervatis et lineato-lepidotis, scapo 22-28 cm longo, bracteis floriferis longioribus, floribus longioribus, sepalis longioribus, petalis longioribus et antheris longioribus differt; a *O. graomogolense* Leme & C. C. Paula, cui proxima, laminis foliorum basin versus manifeste crassis, subtus conspicue nervatis et lineato-lepidotis, bracteis floriferis brevioribus et sepalis suboblongis acutisque differt.

Plant terrestrial, stemless, 30-37 cm high at anthesis, propagating by short basal rhizomes, but without shoots originating from the inflorescence. **Leaves** ca. 6, laxly rosulate and forming a distinct rosette before anthesis and afterwards, the upper leaves not distinguishable from the scape bracts; **sheaths** inconspicuous, subreniform, ca. 2.7 x 5.5 cm, strongly corrugate and densely white-lepidote toward the apex and abaxially, thick; **blades** sublinear-attenuate, long-caudate, 35-41 cm long, 2.2-3.8 cm wide at the base, 2-5 mm thick near the base, strongly coriaceous, subspreading-arcuate, distinctly channeled mainly toward the base, dark red, abaxially conspicuously nerved

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and densely adpressed and coarsely white-lepidote, trichomes concentrated along the intercostal zone and not at all obscuring the blade color, adaxially glabrous, margins erect to suberect, densely spinose at the base to laxly spinose toward the apex, spines narrowly-triangular, acicular, spreading (basal ones) to antrorse-uncinate (the apical ones), castaneous toward the apex, glabrous, 2-3 mm long, 1-1.5 mm wide at the base, 3-10 mm apart. **Scape** erect, greenish to reddish-bronze colored, densely white-lanate, 22-28 cm long, 0.7-1.3 cm in diameter, sulcate; **scape bracts** foliaceous and not distinguishable from the leaves, not covering the scape, suberect to spreading. **Inflorescence** bipinnate except for the inconspicuously simple extreme apex, subellipsoid to capitate, erect, 4.5-6 x 3.5-4.5 cm (not including the primary bracts), fascicles densely arranged, rachis not visible; **primary bracts** spreading or nearly so, many times longer than the fascicles but reduced in size toward the inflorescence apex, canaliculate, the basal ones foliaceous to subfoliaceous and resembling the scape bracts, the upper ones with a broadly ovate sheath and a long, narrowly subtriangular to sublinear-caudate or nearly subulate pungent blade, 5-26 x 1.8-3 cm, densely and coarsely white-lepidote abaxially mainly toward the base, glabrescent to glabrous adaxially, greenish at the base and dark red toward the apex, conspicuously nerved abaxially, densely to laxly spinose, spines narrowly triangular-acicular, 1.5-2.5 mm long, 0.5-1 mm wide at the base, 2-15 mm apart, spreading (basal ones) to antrorse-uncinate (apical ones); **fascicles** 5 to 6, polystichously disposed, suberect, sessile, subflabellate-pulvinate, 25-30 x 13-20 mm (excluding the petals), 3- to 5-flowered; **floral bracts** ovate-triangular, acuminate and ending in a short, acicular mucro, densely spinulose toward the apex, spines less than 0.5 mm long, distinctly carinate mainly toward the apex, about equaling 1/2 to 3/5 of the sepals length, erect or nearly so, green, distinctly nerved, glabrescent except for the white-lepidote to white-sublanate apex, trichomes fimbriate, 17-25 x 8-16 mm, thinly coriaceous toward the apex and along the keel and membranaceous toward the base and the margins; **flowers** 38-41 mm long (including the petals), sessile, densely arranged, odorless; **sepals** suboblong, subsymmetrical, apex acute and shortly acicular-mucronulate, 18-23 x 4-8 mm, free, green except for the hyaline membranaceous margins, glabrous except for the densely white-lanate apex, margins entire to inconspicuously crenulate near the apex, the adaxial ones alate-carinate with keels decurrent on the ovary, keels

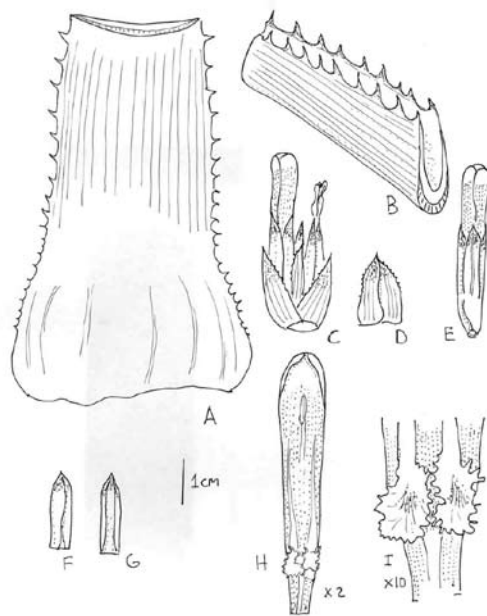


Figure 2. *Orthophytum diamantinense* Leme: A) basal segment of the leaf; B) basal segment of the leaf blade; C) basal fascicle; D) floral bract; E) flower; F) abaxial sepal; G) adaxial sepal; H) petal; I) details of the petal appendages.



Figure 3. Habit of the holotype of *Orthophytum diamantinense*, from Datas to Serro, Minas Gerais, which flowered in cultivation.

Figure 4. Habit of the paratype of *Orthophytum diamantinense* (Leme 5835), from Diamantina to Biribiri, Minas Gerais, which flowered in cultivation.

entire, the abaxial sepal ecarinate; **petals** sublinear-subspathulate, obtuse-cucullate, 30-33 x 5-7 mm, free, erect at anthesis and forming a tubular corolla, green except for the white apex, bearing 2 irregularly and broadly laminate, obovate to suborbicular, irregularly lacinate-crenulate, 2.5 x 2.5-3 mm appendages 4-5 mm above the base, as well as 2 conspicuous longitudinal callosities shorter than the antepetalous filaments; **filaments** terete, green, the antepetalous ones ca. 24 mm long, adnate to the petals for 16-17 mm, the antesealous ones 25-26 mm long, free; **anthers** subellipsoid to sublinear, 3.5-4 mm long, slightly laterally complanate, base obtuse and apex obtuse and inconspicuously and finely apiculate, dorsifixed at the middle; **pollen** subellipsoid, sulcate, the exine at the middle reticulate with subrounded lumina, muri narrowed, exine near the poles perforate; **stigma** weakly conduplicate, ca. 1.5 mm in diameter, white, the blades obtuse, suberect, the margins crenulate; **ovary** 6-8 mm long, 5-6 mm in diameter at the apex, trigonous, glabrous, green; **epigynous tube** inconspicuous; **placentation** apical; **ovules** obtuse, numerous. **Fruits** unknown.

Paratypes: Minas Gerais: road Diamantina to Milho verde, 18°31'34"S, 43°27'14"W, May 2003, R. C. Forzza 2394, fl. cult. Oct. 2007, E. Leme 5728 (HB); Diamantina, road Diamantina to Biribiri, near Cachoeira dos Cristais, 25 Jul. 2003, E. Leme 5835, fl. cult. Sept. 2007 (HB); São Gonçalo do Rio das Pedras to Diamantina, Jan. 2003, C. C. Paula s. n., fl. cult. E. Leme 5658 (HB).



Figure 5. Inflorescence details, paratype of *Orthophytum diamantinense* (Leme 5735) from Diamantina to Milho Verde, Minas Gerais.

Figure 6. Inflorescence details of *Orthophytum mello-barretoii* L.B. Smith (Leme 7243) from type locality, Palácios, Serra do Cipó, Minas Gerais, flowered in cultivation.

The name chosen for this new taxon is a clear reference to the region of Diamantina, in the Espinhaço range, situated in the domain of Campos Rupestres, where *O. diamantinense* is a relatively common species.

This new species is morphologically related to *O. mello-barretoii*, but can be easily distinguished by the longer leaf blades (35–41 cm vs. 14–18 mm long), which are strongly thickened toward the base and conspicuously nervate and lineate-lepidote abaxially, the distinctly longer scape (22–28 cm vs. 6–8 cm long), longer floral bracts (17–25 mm vs. 12–15 mm long), longer flowers (38–41 mm vs. 28–31 mm long), longer sepals (18–23 mm vs. 13–15 mm long), longer petals (30–33 mm vs. 23–26 mm long); and by the longer anthers (3.5–4 mm vs. 2–2.5 mm long). However, *O. diamantinense*, due to its more robust size is closer related to *O. graomogolense* differing from it by the leaf blades strongly thickened toward the base and conspicuously nervate and lineate-lepidote abaxially, shorter floral bracts (17–25 mm vs. 28–30 mm long) and by the suboblong and acute sepals (vs. narrowly triangular-lanceolate and acuminate).

Our first contact with *O. diamantinense* was 15 years ago, when the holotype specimen was collected. Since then we had the opportunity to observe this species in different areas in the neighborhood of Diamantina, where it has a sparse distribution in the “Campos Rupestres” vegetation, with scattered but frequent individuals growing in accumulated organic material among rock outcrops and in crevices, completely exposed to sunlight or more often partially protected by shrubs.

Identification key for “subcomplex *mello-barretoii*”

Plants flowering 30–40 cm high; leaf-blades 35–90 cm long.

2. Leaf blades conspicuously nervate and lineate-lepidote abaxially, margins with spines 2–3 mm long, the apical ones antrorse-uncinate; floral bracts 17–25 mm long; sepals suboblong and acute.....1. *O. diamantinense*.

2. Leaf blades densely adpressed and coarsely white-lepidote abaxially to glabrescent, not lineate-lepidote, margins with spines 3–4 mm long, prevailing spreading; floral bracts 28–30 mm long; sepals narrowly triangular-lanceolate and acuminate.....2. *O. graomogolense*.

Plants flowering 14–20 cm high; leaf blades 12–16 cm long.

3. Flowers 28–33 mm long (including the petals); sepals 13–18 mm long.

4. Floral bracts 20–24 x 12–16 mm, distinctly suberect-recurved, about equaling the sepals length, apex densely and coarsely white-lepidote but not lanate; sepals ca. 18 mm long, narrowly triangular-lanceolate, apex not lanate; ovary densely white-sublanate.....3. *O. piranianum*.

4. Floral bracts 12–15 x 8–10 mm, erect or nearly so, equaling the middle of the sepals, apex conspicuously white-lanate; sepals 13–15 mm long, suboblong, apex conspicuously white-lanate; ovary glabrous.....4. *O. mello-barretoii*.

3. Flowers 45–46 mm long (including the petals); sepals 26–30 mm long.

5. Floral bracts ca. 29 mm long, greenish-white; sepals 26–27 mm long, greenish-white, densely and coarsely white-lepidote with lanate apex; petals bearing laminate appendages.....5. *O. schulzianum*.

5. Floral bracts 22–23 mm long, orange at apex; sepals ca. 30 mm long, reddish-orange toward the apex, glabrous; petals bearing fimbriate appendages.....6. *O. eddie-estevesii*.

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I would like to thank Claudio Coelho de Paula, Director of the Unidade de Pesquisa e de Conservação de Bromeliaceae – UPCB, of the Universidade Federal de Viçosa, for providing fresh field collected specimens of *Orthophytum mello-barretoii* from the type locality; used in this study.

Literature Cited

Leme, E. M. C. (2004). “Studies on *Orthophytum*, an Endemic Genus of Brazil - Part I.” *J. Bromeliad Soc.* **54**(1): 36–43.

Book Reviews

Jason Grant

Guia de la Bromelias de Bogotá y sus alrededores.

Impresol Ediciones Ltda. Julio Betancur. 2001. 19 cm, 152 pages, soft cover. ISBN 958-9387-30-6, Spanish. Universidad Nacional de Colombia.

This is a handy Spanish-language field guide to the bromeliads that occur in the vicinity of Bogotá, Colombia. Several brief introductory chapters describe how to use the guide, general descriptions of bromeliads and their important characteristics, uses and common names, as well as a key to the species. The key to the species and the description of each species use detailed characters that bring the reader back to a colored glossary. 51 species are described including: *Aechmea* (1 sp.), *Catopsis* (1 sp.), *Greigia* (2 sp.), *Guzmania* (5 sp.), *Mezobromelia* (1 sp.), *Pitcairnia* (2 sp.), *Puya* (8 sp.), *Racinaea* (6 sp.), *Tillandsia* (20 sp.), and *Vriesea* (5 sp.). This guide will be of most use in the Central Cordillera of Colombia.

Illustrated guide to the Trees of Peru.

Published by David Hunt, England. T.D. Pennington, C. Reynel, & A. Daza. 2004. 24.5 cm, 848 pages, hard cover. ISBN 0-9538134-3-6, English. Missouri Botanical Garden. <http://www.mbgpress.info/>

This is an impressive book that describes the tree flora of Peru. 980 genera are described in detail, most with an accompanying excellent line-drawing. Each genus has full citation, bibliography, description and notes. Since Bromeliaceae have no trees, the family is obviously not covered. However, this flora is extremely important for field botanists not only in Peru but probably in neighboring regions of Colombia, Ecuador, Bolivia, and Brazil. It is highly recommended for those conducting field work in both Andean and Amazonian regions of South America.

A guide to tropical plants of Costa Rica.

A Zona Tropical Publication. Willow Zuchowski. 2005. 23 cm, 529 pages, soft cover. ISBN 0-9705678-4-7, English. <http://www.zonatropical.net/>

This Monteverde resident has gifted us a book which has a tremendous amount of information for amateurs and professionals alike. How many times have you walked on a beach in the Neotropics collecting and musing the seeds and shells that have washed up? Little chestnut colored ones and large brown ones are all identified here in one place! Chapters of this multidisciplinary book include: Painted Treetops; Other Common Trees; Roadside and Garden Ornamentals; Fruits and Crops; Living fences and Reforestation; Special Habitats; and Typical Tropical Groups. Each Chapter has

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subsections, which is how we find the section on drift seeds under Beach and Mangrove in Special Habitats. Twelve pages cover some of the most common bromeliads in Costa Rica. The book is handsomely illustrated with color photographs by Turid Forsyth. A very good read!

Páramos: a checklist of plant diversity, geographical distribution, and botanical literature.

Memoirs of the New York Botanical Garden. James L. Luteyn. 1999. 25.5 cm, 278 pages, hard cover. ISBN 0-89327-427-5, English. New York Botanical Garden Press. <http://www.nybg.org/bsci/spub/catl/>

This book serves as a general introduction to the páramo ecosystem in South America. The páramo is a typical grassland ecosystem of high elevation areas (3000-5000 m) in the Andes dominated by grasses and other low plants. These regions have a high amount of biodiversity and endemic species. Within the introduction are texts that cover geographical distribution, climate, soils, paleohistory and paleoecology, vegetation zonation, morphological and physiological adaptations, growth forms, flora, fauna, human influence, impact of burning and grazing. This is followed by a checklist of plants (lichens, mosses, hepatics, and vascular plants) of the páramo, and most importantly a gazetteer of páramo localities, divided into sections on Costa Rica-Panama, Colombia, Venezuela, Ecuador, and Peru. This gazetteer provides the name of each páramo, its elevation, latitude, longitude, political division, and any relevant notes. This should be used in conjunction with the Flora Genérica de los Páramos, reviewed below.

Flora Genérica de los Páramos: Guía Ilustrada de las Plantas Vasculares.

Memoirs of the New York Botanical Garden. Petr Sklenar, James L. Luteyn, Carmen Ulloa Ulloa, Peter M. Jorgensen, & Michael O. Dillon. 2005. 23 cm, 278 pages, hard cover. ISBN 0-89327-468-2, English. New York Botanical Garden Press. <http://www.nybg.org/bsci/spub/catl/>

This is an indispensable flora for anyone interested in the páramo floristic region of Andean South America, best accompanied with the gazetteer reviewed above. The flora describes 540 genera in 127 vascular plant families (pteridophytes, gymnosperms, and angiosperms). For each family there is a key to the genera then a brief morphological description of each genus. Each genus is illustrated by a black and white line-drawing. Within the Bromeliaceae, six genera are described: *Greigia*, *Guzmania*, *Pitcairnia*, *Puya*, *Racinaea*, and *Tillandsia*.

Cien plantas silvestres del páramo. One hundred wild plants from the páramo, Parque Nacional Cajas, Azuay, Ecuador.

Carmen Ulloa Ulloa, Samara Alvarez Molina, Peter M. Jorgensen & Danilo Minga. 2004. 13.5 cm, 100 pages, soft cover. ISBN 9978-43-573-5, bilingual Spanish and English. Missouri Botanical Garden. <http://www.mbgpress.info/>

This is a small useful field guide to plants of a páramo near Cuenca, Ecuador. Of the more than 500 species found in the P.N. Cajas (3150-4450 m), 100 species are covered by this guide. Each species is illustrated by color photos and descriptions including one bromeliad, *Puya clava-berculis*. The book is user-friendly divided into chapters based on the colors of the flowers.

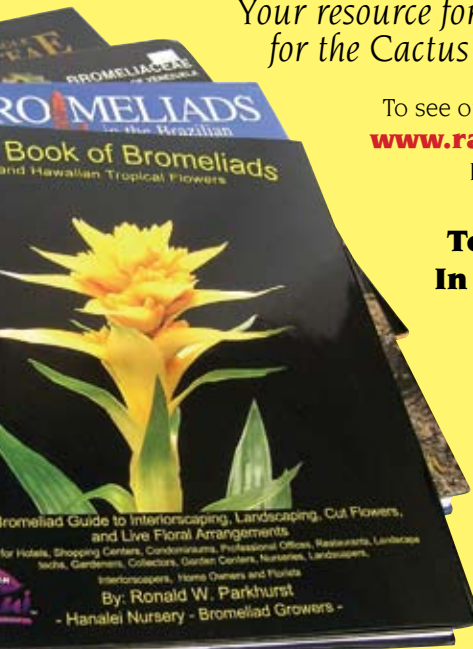
Cinco años de adiciones a la flora del Ecuador 1999-2004.

Carmen Ulloa Ulloa & David Neill. 2005. 28 cm, 75 pages, soft cover. ISBN 9978-079-578-0, Spanish. Missouri Botanical Garden. <http://www.mbgpress.info/>

This booklet updates the *Catálogo de las Plantas Vasculares del Ecuador* (Jorgensen & León-Yáñez 199), reviewed by Grant in J. Bromeliad Soc. 49(6): 255-256. Here, 1246 new additions to the flora of Ecuador are accounted for including 76 of Bromeliaceae. Of the top 15 genera with additions or changes are three genera of bromeliads: *Pitcairnia* (21), *Puya* (15), and *Guzmania* (13). Most of these bromeliad additions reflect the efforts of José Manzanares and his series of books on the bromeliad flora of Ecuador.

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A new *Quesnelia* Species from Bahia

Elton M. C. Leme¹

Quesnelia Gaudich. is a relatively small genus in the subfamily Bromelioideae with 20 known species (Luther, 2006; Wanderley & Proença, 2006; Amorim & Leme, in press) divided in two subgenera: subgen. *Quesnelia*, with three species characterized by simple, densely strobilate inflorescences, and pollen with psilate exine; and subgen. *Billbergiopsis* Mez, with the remaining species characterized by simple to compound, dense to lax inflorescences, and pollen with reticulate exine. Due to its genetic, structural, and morphological diversity, and a poor understanding of the correct delimitation of their species, *Quesnelia* represents with *Aechmea* Ruiz & Pav. and *Canistrum* E. Morren one of taxonomy's most important challenges today.

The genus *Quesnelia* is endemic to Brazil, growing from sea level in restinga and mangrove vegetation and in the coastal Atlantic Forest, to high-altitude grasslands on mountain crests over 1,500 m elevation. The geographical distribution ranges from southern to northeastern Brazil in the states of Santa Catarina, Paraná, São Paulo, Rio de Janeiro, Minas Gerais, Espírito Santo, and Bahia.

The new species described below represents a new addition to subgenus *Quesnelia* from the State of Bahia.

Quesnelia conquistensis Leme, sp. nov. **Type:** Bahia, Vitória da Conquista, leg. Raymundo F. Reis Jr. s. n., fl. cult. Oct. 2006, E. Leme 5667. Holotype: HB. Isotype RB.

A *Q. quesneliana* (Brongn.) L. B. Sm., affinis, sed inflorescentia angustiore, bracteis floriferis pallide roseis, sepalis angustioribus, petalis albis, antheris apice manifeste caudato-uncinatis differt.

Plant flowering ca. 55 cm high, propagating by stout basal stolons. **Leaves** ca. 20 in number, suberect-arcuate, coriaceous, forming a narrow funnelform rosette; **sheaths** elliptic, 11-13 x 7.5-8 cm, densely white-lepidote, vinaceous on the adaxial surface; **blades** sublinear, 29-35 x 4-4.8 cm, green, densely white-lepidote mainly abaxially, **trichomes** partially obscuring leaf



Figure 1. Habit of the holotype of *Quesnelia conquistensis* that flowered in cultivation.

¹ Herbarium Bradeanum, Rio de Janeiro, Brazil. email: leme@tj.rj.gov.br

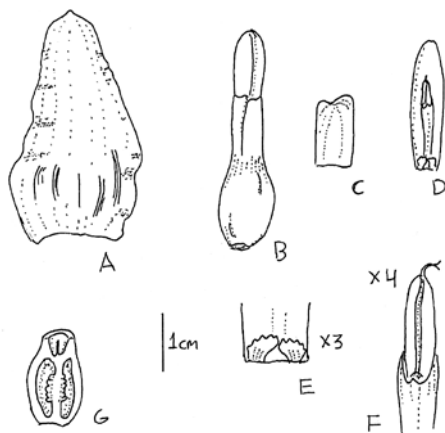


Figure 2. *Quesnelia conquistensis* Leme: A) floral bract; B) flower; C) sepal; D) petal; E) petal appendages; F) anther; G) longitudinal section of the ovary.

ovate, apex broadly acute to subobtusate and minutely apiculate, erect, densely imbricate, entire or remotely denticulate at apex, undulate toward the base, completely hiding the calyx but slightly shorter than the corolla, 35-40 x 18-22 cm, ecarinate, pale rose and soon paleaceous, submembranaceous, densely white-lanate mainly near the base and along the basal margins. **Flowers** 30 to 40, sessile, 38-39 mm long, erect, densely and polystichously arranged, odorless, anthesis diurnal; **sepals** oblong, asymmetrical, erect, 10-11 x 6 mm, connate at base for ca. 1 mm, entire or the apex microscopically crenulate, emarginate and inconspicuously apiculate, ecarinate, white, densely white-lanate; **petals** sublinear, 22-24 x 6 mm, erect at anthesis, white, apex obtuse-cucullate, emarginate, bearing at base 2 asymmetrical, broadly obovate-spatulate, crenulate appendages, 2-2.5 x 2 mm; **stamens** included; **filaments** complanate, slightly dilated toward the apex, 17-18 x 1.5-2 mm, the antepalalous ones adnate to petals for ca. 12 mm, the antesepalous ones free; **anthers** sublinear, 5-6 mm long, base sagittate, apex obtuse and bearing an conspicuous bifid-caudate, hooklike apiculous, dorsifixed at 1/3 of its length above the base; **pollen** globose, inconspicuously porate, exine psilate; **style** ca. 18 mm long; **stigma** conduplicate-spiral, ovoid, ca. 3 mm long, white, blades lacerate; **ovary** subtrigonous, 14-15 x 8-9 mm, densely white-lanate; **placentation** central; **ovules** obtuse; **epigynous tube** ca. 3.5 mm long. **Fruits** unknown.

This new species is closely related to *Q. quesneliana* but can be easily distinguished by its narrower inflorescence (2.8-3 cm vs. 4.5-8.6 cm in diameter), pale rose floral bracts, with the color soon fading and becoming pale yellowish-castaneous even before the end of the anthesis (vs. bright rose), narrower sepals (ca. 6 mm vs. 8-11 mm wide), white petals (vs. purple at apex), and by the anthers with an unusually distinct long caudate-uncinate apex (vs. apex apiculate).

color and forming narrow crossbands, apex acute and spinose-acuminate, apical spine ca. 5 mm long, margins densely spinose, spines dark brown, triangular, spreading to antrorse-uncinate, 2-3 mm long, 4-8 mm apart. **Scape** erect, 26-28 cm long, ca. 1 cm in diameter, densely white-lanate; **scape bracts**, the basal ones subfoliaceous, the upper ones erect, sublinear-lanceolate, 10.5-11.5 x 2.5 cm, acuminate, ending in a subrigid spine, densely imbricate and completely enfolding the scape, distinctly exceeding the internodes, entire, paleaceous, densely white-lepidote outside, glabrous and wine colored inside. **Inflorescence** simple, densely cylindrical, erect, 11-14 x 2.8-3 cm, shorter than the leaves; **floral bracts**



Figure 3. Floral details of the holotype of *Quesnelia conquistensis*.

Quesnelia conquistensis grows as a terrestrial or epiphyte, in partially shaded sites inside a small disturbed fragment of Atlantic Forest, about 700 m elevation, in the neighborhood of Vitória da Conquista, which inspired the name chosen for it. Since it is only known from the type population, there is no data to establish its current conservation status. However, considering it came from a region where the typical vegetation was vastly destroyed, and only small disturbed fragments remain, it is possibly a critically endangered species.

Acknowledgments

I thank the bromeliad collector *Raymundo F. Reis Jr.*, from Vitória da Conquista, Bahia, for providing the living specimens used in this study.

Literature cited

- Amorim, A. M. and E. M. C. Leme "Two New Species of *Quesnelia* (Bromeliaceae: Bromelioideae) from the Atlantic Forest of Bahia, Brazil." *Brittonia* In Press.
- Luther, H. (2006). *An alphabetical list of bromeliad binomials 10th edition*. Sarasota, FL, Bromeliad Society International.
- Wanderley, M. G. L. and S. L. Proença (2006). "Nova Espécie de *Quesnelia* Gaudich. (Bromeliaceae) do Estado de São Paulo, Brasil." *Hoehnea* 33(1): 111-113.

Varieties of Spanish Moss

Jerry Krulik

Spanish Moss, or *Tillandsia usneoides*, is a locally common plant throughout its range. It has the largest natural distribution of any bromeliad. It ranges from the coastal plains of the southern US, as far north as Virginia or Maryland, all the way down to Argentina in South America. (1)

Throughout this vast range, there hardly seems to be any variation. The flower color is greenish-yellow. One pure yellow form exists in Peru, and is rare in cultivation. Note that blue and red colored flowers, as noted elsewhere on the internet, are hoaxes. There does not even seem to be a white flowered form, the normal default color for plants that lack colored pigment. I suspect that the natural pollinators are beetles rather than the more normal, for tillandsias, moths or butterflies or hummingbirds, due to this obligate greenish yellow color and the small flower size with a flat shape. Californian cultivated plants in my collection, which are outside of the normal range of this species, do not seem to set seed very well, so this may be further evidence for a specialized pollinator. I have dozens of clones from Florida, Louisiana, and unknown sources, so there is plenty of opportunity for cross-pollination. Other plants in this grouping of close relatives (*Diaphoranthema*; see my article *Relatives of Spanish Moss* (2)) such as *T. recurvata* set abundant seed in my collection. Some people claim that the tiny flowers are very sweet smelling. I have not been able to smell anything myself. This could also be a natural variation between clones, or between humans.

The plant body itself does show some variations. There is supposedly one very rare, light reddish colored plant in cultivation (per Jeff Sorenson). However, no scientifically named varieties or subspecies seem to exist. The Florida Bromeliad Council taxonomy web site (3) does not mention any named varieties or subspecies. The one exception is a photo with trivial name descriptions of some types. Other so-called varieties and subspecies I have stumbled across do not seem to be validly published. There are many slightly varying forms of this plant. If you take the most extreme forms and just look at them, you might think that they are distinct. However, any large collection of different clones will show continuous variations in form, eliminating any nameable differences.

In figure 1 there are four extreme forms from my own collection, illustrated by a single plant of each. I have given them trivial hobbyist names, just to keep them separate, as is standard among enthusiasts.

These plants look more different when seen in their normal form, as continuous chains of plants - figures 2 and 3.



Figure 1

There is one other source of variation in Spanish Moss. This is the existence of hybrids. For example, here is one from my own collection. This is a cross between the common *T. recurvata* and *T. usneoides*. I suspect that such crosses are not particularly rare. Backcrosses or segregates from a mass of seedlings might even account for plants such as the form 'macro' shown above.



Figure 2

One internet site references another hybrid with *T. mallemonitii*, which is not a member of the *Diaphoranthema*. Uncle Derek's notes mention that this hybrid was probably made in the 1960's in Australia. Some growers list this for sale also. It is interesting that the Bromeliad Cultivar Registry website does not list any *usneoides* named hybrids. (4) I expect that other hybrids will either be made, or be identified, in the future. *T. usneoides* is a popular parent for other *Tillandsia* crosses with plants outside of the *Diaphoranthema* group.

For those people impatient with the normal cultivation methods of raising or searching for hybrids and other variations, there is an alternative. You can easily make your own Spanish Moss varieties! Figure 4 is a photo of some of the novel varieties I made in my garden, and exhibited at our meeting a few months ago. The center-most plant is un-dyed Spanish Moss. It is best viewed in color on my website, www.acephotos.com



Figure 3

Figure 4

The outer covering of Spanish Moss is quite absorbent, taking up to ten times its weight in water. This makes it an ideal substrate for craft work or for startling your visitors. It is easy to dye by just immersing the plant in liquid and then allowing it to drip dry. I make all colors from grey and green to red, orange, yellow, and purple, from just the standard 4 colors from liquid food coloring. These colors do not harm the plants, but unfortunately are not waterproof and quickly fade.



Figure 5

References:

1. http://plants.usda.gov/plantguide/pdf/cs_tius.pdf
2. Krulik, Gerald, The Relatives of Spanish Moss, *Pup Talk* (Saddleback Valley Bromeliad Society), 15(7)p. 5-7, July, 2008. (See at <http://aecphotos.com>)
3. www.fcbs.org 4. www.bsi.org



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More musings by the Registrar, Derek Butcher.

What role does the Register play in this modern world where anything new is considered to be better? With a Register on line under <http://bsi.org> or <http://fcbs.org> anyone can pursue a plant that they may wish to acquire and which they can be fairly certain as to its correct identity. In other words it is a Record of Bromeliad Cultivars where selection of what each person sees as being different has been made by all sorts of hybridists and growers, be they single producers or producers of many.

Plants just like humans have a certain life span and nature rejuvenates species by regularly producing seeds. To create a species takes many years (thousands?) of crossing and back-crossing, and it all depends on the ecology of the area. Man-made hybrids are rarely reproduced by seed so if propagation is only by offset or meristem then these plants have a certain lifespan. It is known that Corn. Bak continue to reproduce the same named hybrids from selected clones but this seems to be in the minority. We have only been growing hybrids for the last 100 years or so and most of the hybrids created in those early days are just not with us today. Nature has taken many years to evolve into a distinct species and yet Man has only taken say 50 years to merge these species into look-alike plants by inbreeding. What differences we see now will continue to decline as more indiscriminate hybridising continues.

Today especially with *Guzmania*, *Vriesea*, *Cryptanthus* and even more with *Neoregelia*, hybridising has become hybrid x hybrid. In fact , especially with *Neoregelia* you can good results by collecting seed from a hybrid that has been pollinated by nature and not a deliberate mating. It all depends on judicial culling. I treat this as hybrid x ? because we do not know the pollinator (It is not strictly F2 where direct action has been taken to self pollinate!)

It is said (tongue in cheek?) that in the Orchid fraternity they always have the correct identity of both parents and that foreign pollen is never encountered. This means they can work with named greges. We do not have that luxury not only with the correct identity of parents but because bromeliads are very promiscuous. However, you can still trace ancestry of most Bromeliad hybrids because we have the parents as identified by the hybridist on our data base. So you can search backwards to find out if a hybrid has say 1/64th or 1/32nd , or whatever, of say *Neoregelia caroliniae* in its makeup. I would suggest that for guzmanias we would mainly get back to 2 species; for vrieseas, 6 species; for Glyph vrieseas 4 species; cryptanthus 4 species; and neoregelias 10 species. In other words a low percentage of their total. To me this means much inbreeding which in turn gives us many look alikes. However, each plant grown from seed has a zest for life compared to where other offsets have reached middle age in their aging process. While it may have a zest for life, if proper culling has not taken place, the middle aged plants can still be better looking and more stable!

Should we have a Cultivar Register, especially one that is cluttered with now extinct hybrids? I say "yes" - we need it for historical purposes for good or bad. We need it for referral by those keen enough to use it. But whoever has the fortitude to do an ever increasing unpaid job as registrar is something for the future. Very few other plant groups have an easily accessible centralised system and have to rely on hearsay, catalogues, plant magazines and coffee table books to try to ascertain identity. Only those prepared to register will make it a worthwhile Record.

I hope to be able to get more hybridists to use their pollen techniques to be increasingly devoted to conservation of the species which will need to be grown from unadulterated seed, for species to keep their vitality in cultivation. After all, the main aim of our Society must be to conserve species rather than conserving hybrids. This already happens with the likes of *Aechmea fasciata*, *Guzmania lingulata* and *Neoregelia carolinae* but all seem to acquire a Cultivar name indicating bigger and better plants. In other words selection by man and not selection of the fittest.

However, I am optimistic that these conservation aims will be met.

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Margaret Mee - Botanical Artist

Andrew Flower, BSI Editor.



Our cover features a picture of a Margaret Mee painting, the original work being part of a collection of her works currently on sale in a London catalogue offered by Sotheran's of Sackville Street. The painting is listed in the catalogue as an original gouache of *neoregelia margaretae* - which it plainly is not! The painting is of *Aechmea recurvata*, and when we went to press you could buy it for £12,500 Sterling.

Mee was an internationally recognized botanical artist, with great scientific skill. She spent many years in Brazil, and painted hundreds of Amazonian species, including many bromeliads. She was employed by the Instituto de Botanica of Sao Paulo to prepare colour plates for their *Flora Brasílica*, and later on Lyman B. Smith bought 20 of her works to use in his monograph (Lyman B. Smith, "Margaret Mee" *J. Brom Soc.* XVII(1) 1967).

The collection currently being sold includes many other original paintings, books from her library, and medals including the M.B.E. awarded her for services to Brazilian botany. The full catalogue is available from Henry Southeran Ltd., 2 Sackville St., Piccadilly, London W1S3DP or email to mstjcj@southerans.co.uk

In 2004 the Antique Collector's Club in association with Kew Gardens published the magnificently illustrated 320 page volume *Margaret Mee's Amazon: Diaries of an Artist Explorer*.

Bromeliad icons in old publications, part 3

Leo Dijkgraaf

In 1852 a monthly magazine that would become an outstanding continental European garden journal started in Germany, continuing to 1940. It was published in Erlangen and later in Berlin. The title changed many times but was for the first volume it was *Gartenflora. Monatschrift für deutsche und schweizerische Garten und Blumenkunde herausgegeben von E. Regel*. Eduard August von Regel, whose name lives on in the genus *Neoregelia*, was at the time head-gardener of the university botanical garden in Zürich and would eventually become director of the imperial garden in St. Petersburg. This was later reflected on the title-page of *Gartenflora* with the added line *und Organ des Russischen Gartenbau-Vereins in St. Petersburg*. Regel was editor until 1884; the most well-known botanist succeeding him was Ludwig Wittmack, professor at the Agricultural University in Berlin. In total 2000 coloured plates were published, however it must be said they were not always in good quality, particularly those after 1885. I traced some 55 bromeliads until the year 1905.



Figure 1. *Bromelia binotii* E. Morren ex Mez. published as *Bromelia fastuosa* var. *bergemannii* Regel. *Gartenflora* vol. 15 plate 493 (1866).

Bromelia fastuosa var. *bergemannii* (Figure 1) was described by Regel in *Gartenflora* in 1866 and is currently a synonym of *Bromelia binotii*, while *Bromelia fastuosa* sensu Regel (non Lindley) is treated as a synonym of *Bromelia antiacantha*, both with reference to



Figure 2. *Bromelia binotii* E. Morren ex Mez. published as *Karatas binotii* auct. anon., nom. illeg. *Floralia* 1905 no.44 plate 125 (1905).

Floralia the plant is named *Karatas binotii*, but that name is invalid as it had already been used by Austrian botanist Franz Antoine for the species we now know as *Neoregelia binotii*. It is not known to me from present-day collections in Europe.

Nidularium laurentii in *Gartenflora* in 1867 (Figure 3) was a new species described by Regel earlier that year, but was to become a synonym for Brazilian clergyman and botanist Vellozo had it already published as *Tillandsia concentrica* in 1825 and the current name for this plant is *Neoregelia concentrica*. In *Gartenflora* vol.34 (1885) Regel named it *Nidularium laurentii* var. *typicum* and described some other varieties: *N. laurentii* var. *elatius* (now *Neoregelia marmorata*) and *N. laurentii* var. *immaculatum* (now *Neoregelia cruenta*). The name of the plant honors Dr. Laurentius of Leipzig. *Neoregelia concentrica* with its broad pale green leaves, heavily blotched with purple and blackish-brown markings and accentuated by long black spines, grows from sea level to 800 meter altitude in rainforests and also on and near rocks in the state of Rio de Janeiro. From the same year (1867) is the plate of *Aechmea weilbachii* Didrichsen (Figure 4), also a species from Brazil. The Danish botanist Didrik Ferdinand Didrichsen described *Aechmea weilbachii* in 1854 from a collection at Corcovado, the rocky mountain in the city of Rio de Janeiro; it is a species endemic to the states of Espírito Santo and Rio de Janeiro. Regel

the same plate 493 (Smith & Downs 1979). The variety *bergemannii* was named after Bergemann, a head-gardener of a certain Mrs. Kolenischeff. Regel claims his plant originated from Mexico, but *Bromelia binotii* is a rare species only found in northern Espírito Santo in Brazil (Leme & Marigo 1993). It is remarkable that this terrestrial plant was cultivated in Europe in the 19th century; there is even a second drawing of it (Figure 2), published in 1905 in a Dutch illustrated weekly agricultural journal named *Floralia*, *Geïllustreerd Weekblad voor Tuinbouw*. That drawing was made from a plant belonging to O.J. Quintus, a bromeliad collector and hybridizer living near Groningen in the north of The Netherlands. Quintus corresponded with Wittmack and send him some of his hybrids; it may well be, but this is speculation, that the *Bromelia binotii* from Quintus was a lineal descendant of Regel's plant. In



Figure 3. *Neoregelia concentrica* (Vellozo) L. B. Smith. published as *Nidularium laurentii* Regel. *Gartenflora* vol.16 plate 529 (1867).

received the plant from the Belgian nursery of Louis Van Houtte. As a consequence of the new genus *Lamprococcus* described by Johann Beer in 1856, the new combination *Lamprococcus weilbachii* had been made by Édouard Morren in *La Belgique Horticole* in 1861. Morren had his plant from the firm of Jacob-Makoy in Belgium.

Towards the end of the 19th century the horticultural magazines started to give descriptions and illustrations of cultivars. For example, in 1892 Wittmack gave a description of a hybrid made by Quintus and labeled it *Vriesea Obliqua*, an obvious name when looking at the plate (Figure 5). The horizontal position of the spike is not an abnormality of a single plant but a character developing with all seedlings. Quintus didn't remember how the cross was made but thought that the cultivar *Vriesea Retroflexa* was involved, a hybrid of *V. scalaris* and *V. psittacina*. Candidates for the second parent are *V. Duvaliana*, *V. amethystina* and *V. carinata*.

In Germany earlier that century Heinrich Gottlieb Ludwig Reichenbach, the director of the botanical garden in Dresden, published *Iconographia botanica exotica* in 1827-1830, with text in Latin and illustrated with 250 copper engravings of exotic plants. It contains a plate of *Aechmea aquilega*, by Reichenbach incorrectly labeled *Bromelia paniculigera* Swartz (that one is a synonym now of *Aechmea paniculigera*). The



Figure 4. *Aechmea weilbachii* Diderichsen. published as *Lamprococcus weilbachii* (Diderichsen) E. Morren. *Gartenflora* vol.16 plate 539 (1867).



Figure 5. *Vriesea* cv. *Obliqua*. *Gartenflora* vol.41 plate 1369 (1892).

plates in the copy of the work that I have seen were monochrome, but there are copies made in colour. It was published along with the 10 volumes of *Iconographia botanica seu plantae criticae* (1823-1832); in there are 1000 engravings of rare and less known plants, but no bromeliads. From 1834-1846 Reichenbach published in cooperation with “gardenfriends” in Brussels the 5 volumes of *Flora exotica* with 360 chromolithographs (not seen by me). All his publications were issued in Leipzig and most of the drawings were made by Reichenbach himself. (to be continued)

Literature cited

Leme, E. M. C. and L. C. Marigo (1993). *Bromeliads in the Brazilian wilderness* Rio de Janeiro, Marigo Comunicação Visual.

Smith, L. B. and R. J. Downs (1979). *Flora Neotropica Monograph No. 14, Part 3 Bromelioideae (Bromeliaceae)*. New York, The New York Botanical Garden.

Love of Bromeliads Breeds Fellowship Among Men

Jules Chantrier

I have often had, in the course of my life, occasion to prove the truth expressed in this wise saying.

Flower shows and congresses bring together men who have the same tastes, the same aptitudes and the same aspirations, and give them the opportunity of becoming acquainted. Thus men learn to know each other better and to appreciate each other. From this, sympathy springs up, and friendship is established--friendship, that most precious of all good things which sweetens and enriches life and which, in times of trouble, brings us unexpected comfort and relief and provides much food for thought.

On this subject I should like to tell this little authentic story of which I was a most interested witness.

It was in June, 1940. Holland had just been invaded, the Belgian army had been annihilated, the British troops had withdrawn across the channel after Dunkirk and Hitler's divisions were rushing forward. Hundreds of thousands of soldiers, tipsy with success, were pushing rapidly southwards with a view to making themselves masters of Paris.

Mortefontaine, a little village of 400 inhabitants, lying thirty-five kilometers to the north of Paris, had hurriedly been put in a state of defense; the roads had been blocked and trenches had been dug, in order to check, or at least delay, the thundering advance of the conquerors.

As for me, having fought actively for four years in the first Great War of 1914-1919, in the famous Marchand Division, the heroes of Fashoda, and with the 63rd American Brigade, with the valiant American Generals Louis Covell and Campbell, who have been my good friends ever since, I had decided to “stay put”, whatever happened. But on June 9th I received formal orders from the military authorities to evacuate the place immediately.

So I was obliged, willy-nilly, to abandon my home, my business, my collections and my hybrids. That morning, having piled up in my little car everything which it could possibly carry, we left, we knew not exactly whither--my wife, our old cousin of eighty years who had taken refuge with us, my dog and myself.

My first idea was to stay as near to Mortefontaine as possible. I was hoping for a second victorious counter-offensive along the Marne, as in 1914, and thought that, once across the Seine, we should be in comparative safety, and in a position to return to Mortefontaine if events turned out favorably. So we stopped at Samois, just across the Seine, where we had found two rooms in the house of a friendly nurseryman in which to lodge. But three days later we learned that one German right wing had crossed the river at Rouen and was swinging round to the East to surround us. Samois in its turn had to be evacuated, and that evening we set out again, with no aim in view, but as chance should lead us.

In short, eight days later, after numerous misadventuresss, under continuous bombardment from Italian aircraft, on a road crammed with cars, flocks and teams of draught animals of all kinds, where we hardly made 10 kilometers (6 miles) an hour, we found ourselves immobilized in a street in Chateauroux. We had not a drop of petrol left, nor any hope of buying any at any price.

A nurseryman in the place allowed us to install ourselves in an empty potting-shed in his establishment. For want of better, we stayed there, sleeping on the straw and doing our cooking in the open air between two paving stones, in the archaic manner.

Although one Armistice had been signed, we had to wait two months before the High Authorities could allow us 40 liters of petrol for our return journey to Mortefontaine.

Now we come to the point of the story, which may astonish readers except, of course, those of them who have a genuine love of plants.

I drove back to Mortefontaine, of which I had no news since leaving. I expected to find that everything I possessed had been destroyed. Well, thanks to a providential coincidence, I found everything at home almost untouched. My house, my greenhouses and my collections had suffered little damage. A German officer who knew me and remembered my address had billeted himself in my house, slept in my room and saw to the aerating and shading of the greenhouses and the watering of the plants until one of my workmen, who had remained in the neighborhood, could return and take up the job.

I learned later on from a village woman, who had looked after the room, that this German officer was himself a nurseryman and that we had met at the Flower Show at Ghent in 1938. I never found out his name, nor heard any news of him. I fear, and I am sorry to think, that he must have shared the fate of many of his comrades and had been killed before the end of hostilities.

Mortfontaine (Oise), France

Reprinted from The Bromeliad Society Bulletin, Vol 1 No. 4 (July-August 1951).

CALL FOR NOMINATIONS FOR BSI DIRECTORS, 2010-2012 TERM By Dr. Larry Giroux

Each year, the BSI Nominations Chair asks BSI members to nominate BSI Board of Directors representatives from their respective regions. If more nominations are made than are open positions for a region, the BSI members in that region are asked to vote on the nominees. The first important step is to nominate people for the directors' open positions. Below is the list of open positions for the 2010-2012 three-year term. If you are a member of a district with an open position, please help your district by finding a willing person to nominate for your district's open position. Instructions regarding who can be nominated and how to nominate follow.

The regions for which directors are up for re-election or there are new vacancies for the 2010-2012 term and the numbers of directors needed are as follows:

Australia 1 director California 1 director

Please note that the open Australian position is for an added director based on a percentage increase in BSI membership during the last year. Any nominees for the California position will be running against the incumbent, who is up for re-election for a second term.

Nominations to serve on the BSI Board of Directors for the three-year 2010-2012 term will open January 1, 2009. Serving on the BSI Board is both fun and interesting. The Board makes decisions that influence the direction and activities of the BSI. Board meetings are held annually, usually sometime during the northern hemisphere summer. Board members are expected to attend these meetings and do so at their own expense. The cost need not be prohibitive because Board members can share hotel rooms. One of the Board's activities is to cosponsor and actively participate in the semiannual World Bromeliad Conferences. All BSI members are encouraged to participate in the nomination and election process for Board members.

Who may nominate? Any voting member of the BSI 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 have the following credentials: (1) be a voting member of BSI 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; and (5) agree to serve as a director if elected and to remain a member of the BSI for the duration of his/her term.

Procedure for nominating: (1) obtain the consent of the prospective nominee and verify compliance with the qualification criteria; (2) mail or email nominations to the chairman of the Nominations Committee between January 1, 2009 and March 15, 2009, inclusive. (Nominations must reach the Chair of the Nominations Committee by March 18, 2009.) Nominations by telephone will be accepted through March 15, 2009, but must be confirmed in writing within two weeks; (3) supply with each nomination the full name, address and telephone number and e-mail address, if applicable, of the nominee, the position for which the nomination is being made, the local society affiliation, and a brief "bromeliad biography" of the nominee.

Please mail nominations to:

Larry Giroux, BSI Nominations Chair

3836 Hidden Acres Circle N

North Fort Myers, Florida 33903 USA

239-997-2237 or email to: nominations@bsi.org

EVENTS CALENDAR

Australia

April 10-13, 2009, XV Australian Bromeliad Conference, Adelaide. Contact (08) 8356 7728 or www.bromeliad.org.au/BROMADELAIDE2009.htm

May 2-3, 2009 Bromeliad Society of NSW Autumn Show, Concord

May 16-17 2009, Bromeliad Society of Australia Autumn Show, Burwood

October 25-26 2009, Bromeliad Society of NSW Spring Show, Concord

United States of America

July 26 - August 1, 2010. BSI World Conference to be held at the Astor Crowne Plaza in New Orleans.

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Bromeliad Groups - if you would like your events listed here for free, send details to the Editor!

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The purpose of this nonprofit corporation is to promote and maintain public and scientific interest in the research, development, preservation, and distribution of bromeliads, both natural and hybrid, throughout the world. You are invited to join.

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