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Covers

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Back—*Cryptanthus crassifolius* in cultivation in Brazil. A new species, described on page 17. Photograph by Elton M.C. Leme.

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Conference

Conference Planning - Progress Report

Lynn Hudson, Conference Chair

Welcome to 2008, the year of 'Bromeliads Downunder' the 18th World Bromeliad Conference June 24-29 in Cairns. The core of a conference is friendship; the bonus is the seminars, sales and the displays of fascinating bromeliads that feed our souls and bring us all together.

Venue: Cairns International Hotel is located in the central business district, surrounded by shops and an easy walk to tourist facilities and the waterfront. The conference, sales and show room are all on the ground floor adjoined by a foyer.

What's on When?

Tuesday will be Director's Board Meeting and Golf Game.

Wednesday plants will be accepted for the competitive Show.

Thursday the Show judging plus an optional trip to Rainforest Habitat, Pt. Douglas.

At 4:00pm the Cairns Mayor will Officially Open the conference followed by the introduction of your BSI Committee & Board members. Plant Sales open at 7:00pm.

Friday & Saturday are Seminar days. Friday at 7:00pm is Rare Plant Auction.

Sunday is local Garden Tours and the Banquet at 6:30pm the finale of a happy week.

Speakers: I have confirmation from Peter Bak, Cristy Brenner, Derek Butcher, John Catlan, Andrew Flower, Larry Giroux, Paul Isley, Robert Kopfstein, David Liddle, Vic Przetocki and Herb Plover and their topics range from bromeliad expeditions through to cultivation methods and including flowering.

Registrations: At the end of December we had 287 Registrants and I know more are intending to attend. The conference room can hold 600 for seminars and 400 for Gala Dinner - tell your friends to fill out and send their registration form.

BSI Membership Secretary, Dan Kinnard, is coming to Oz and therefore will not be home to receive and action registration forms after 1st June. After 25th May 2008 all Registration Forms should be posted to Cairns - address below. To facilitate planning I would advise registration prior to the conference, it may be paid on arrival but it will not be cheaper to register at the door.

On arrival in Cairns, Delegates will receive a Welcome-bag with a programme, name badge, map of Cairns and brochures. What else will Delegates get? Entry to Show Room, Sales Room (Delegate exclusive Thursday opening night) and Rare Plant Auction; Local Gardens Tour; Tea/Coffee & Lunch on seminar days; Banquet and Proceedings Book. For Partners the Local Gardens Tour is \$AUD15 and the Banquet is \$US55. Visitors will pay \$10 to enter the Show & Sales Room.

Spouses/Partners who are not registered, the Local Gardens Tour is \$15 and the

Banquet is \$US55. Visitors will pay \$10 to enter the Show & Sales Room.

Tours: I hope every visitor to Cairns experiences the Great Barrier Reef and our Rainforest - the variety is enormous, only the selection is hard. There are many daily offerings that are easily accessed and the following operators have offered us discounts when WBC18 identification is produced.

www.greatadventures.com.au www.sunlover.com.au www.downundertours.com

We will have a Tour Person at the WBC Registration Desk to help you choose and get your discount. Your local Travel Agent should carry some Cairns information. If you do not have access to the Internet and want a brochure just contact me and I will put one in snail mail.

Cairns City Sights – 12:45pm to 6:30pm. City highlights; Flecker Botanic Gardens; Outback Opal Mine; Royal Flying Doctor Centre; Scenic Lookouts; Palm Cove; includes afternoon tea. www.cairnsdiscoverytours.com Highly recommended. \$59pp - less if group booking.

Thursday 26th June 2008 - **Breakfast with the Birds** - one of North Queensland's best tropical buffet breakfasts being a wide range of fresh seasonal exotic and tropical fruits, freshly baked breads, muffins and pastries, cereals, fresh fruit juices, tea and coffee, fresh eggs cooked especially for you by our BBQ chef and a range of hot items to select from, including bacon, breakfast sausages, hash browns, baked beans and more! After breakfast you will be taken on a guided tour through wetlands, rainforest and grassland environments with experienced guides who will provide detailed information about all the animals and birds at The Habitat. Guests are also able to get up close and personal with the Python, Freshwater Crocodile and Koalas that are all presented by wildlife keepers at different times during the day. \$55.00pp

Monday 30th June 2008 - **Whyanbeel Arboretum** - travel north by bus along the scenic coast road past Mossman among the lush Daintree hills to the Sargent Family property where they produce floral colour for the cut flower market and father Peri has hybridized many bright cordylines. Son Peter has been collecting and growing plants for over 30 years; many he has grown from seed and the horticultural content is profound. There are many species palm trees, cycads, heliconias, aroids, bromeliads and other exotic plants. Peter's knowledge of these plants will amaze you. Lunch will be at High Falls Farm Riverside Restaurant. \$60.00 pp

BSI-WBC Registration Forms are downloadable on the BSI site, www.bsi.org and the event website (www.bromeliadsdownunder.com). One is included in this journal.

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Two new *Alcantarea* species from Minas Gerais, Brazil

Elton M. C. Leme & Cláudio Coelho de Paula. Illustrations E.M.C. Leme

Alcantarea is a small genus in the subfamily Tillandsioideae comprising 18 known species (Luther 2006). According to Barfuss *et al.* (Barfuss, Samuel *et al.* 2005) it is included in the tribe *Vrieseae* together with the genera *Vriesea* and *Werauhia*. It is endemic from Brazil and ranges from São Paulo – its southmost limit – to Bahia in Northeast Brazil, where it presents an exclusively rupicolous habit in rocky walls and rocky outcrops in the domain of the Atlantic Forest and “Campos Rupestres”.

Despite the comparatively small number of known species, there is a great potential for the study of the genus with countless new taxa to be described, including the two new species presented here.

Alcantarea distractila Leme & Paula, sp. nov. Type: Minas Gerais, Ouro Verde de Minas, along the road to Itambacuri, ca. 300 m elev, 29 Sept. 2002, E. Leme 5601, C. C. Paula & M. Grossi (Holotype, HB).

A. A. extensa L. B. Sm., cui affinis, sed laminis foliorum brevioribus, ramis perpaucis, lateralibus patente-decurvatis sed apicem versus ascendentibus longioribusque, floribus majoribus, petalis longioribus, subtus apicem versus vinosis differt.

Plant rupicolous, flowering ca. 210 cm high with inflorescence extended; **Leaves** ca. 20 in number, densely rosulate, erect, forming a broadly crateriform rosette; **sheaths** oblong-ovate, ca. 15 x 11 cm, subdensely and minutely brown-lepidote, pale colored; **blades** linear, not narrowed at base, 43-45 x 7.5 cm, thinly coriaceous, green, chartaceous, inconspicuously and sparsely white-lepidote abaxially, apex rounded to subacute and apiculate. **Scape** stout, ca. 95 cm long, 1.5-1.8 cm in diameter, erect, glabrous, dark purplish-wine; **scape bracts** the basal ones subfoliaceous, the upper ones broadly ovate, acute and apiculate, 6-10 x 5-7 cm, suberect with recurved

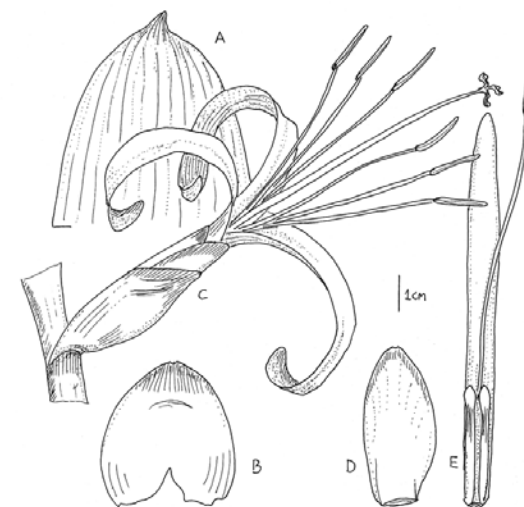


Figure 1: *Alcantarea distractila* Leme & Paula: A) leaf apex; B) floral bract; C) flower; D) sepal; E) petal.



Figure 2: *Alcantarea distractila* Leme & Paula which flowered in cultivation, in the end of anthesis.

long (including the terminal branch), erect; **primary bracts** resembling the upper scape bracts but smaller, many times shorter than the stipes; **branches** 2 to 4 in number (including the terminal one), the lateral ones ca. 105 cm long, spreading-decurved with ascending apex, densely flowered in early anthesis to laxly flowered afterwards, ca. 31-flowered, rachis flexuous to geniculate, subterete to slightly if at all angulose, 2-4 x 0.5-0.8 cm, glabrous, covered by white epicuticular wax not obscuring its dark purplish-wine to dark green color, stipes ca. 29 x 1 cm, terete, dark purplish-wine, glabrous, bearing ca. 3 sterile bracts shorter to equaling the internodes, the terminal branch resembling the lateral ones, suberect-ascending, ca. 78 cm long, ca. 22-flowered, basal peduncle ca. 30 cm long, bearing 4 sterile bracts slightly shorter to equaling the internodes, ecarinate; **floral bracts** suborbicular, 40-45 x 38-40 mm, yellowish near the base and dark wine-colored toward the apex and margins, inconspicuously and sparsely white-lepidote inside, glabrous outside but covered by white epicuticular white wax, not completely enfolding the sepals and equaling 2/3 of its length, distinctly convex, corrugate near the apex at anthesis, ecarinate, strongly corrugate-sulcate after anthesis, apex obtuse-emarginate. **Flowers** sub-distichous, divergent, slightly secund, suberect;



Figure 3: Flower details of *Alcantarea distractila* Leme & Paula in early anthesis.

apex, its basal portion enfolding the scape and with water-holding capacity, distinctly exceeding the internodes but not hiding the scape, green except for the dark purple-wine apex and apical margins, inconspicuously and sparsely white-lepidote to glabrous, covered by white epicuticular wax. **Inflorescence** laxly paniculate, bipinnate, ca. 95 cm



Figure 4: Habitat of *Alcantarea distractila* Leme & Paula at Ouro Verde de Minas, along the road to Itambacuri, Minas Gerais State.

nocturnal but showing open corollas along the next morning in colder days, densely arranged toward the apex in the early anthesis to sparsely arranged afterwards, 13-14 cm long (with petal extended, including the stamens), pedicels stout, 10-12 mm long, ca. 10 mm in diameter at apex, dark green-wine, glabrous; **sepals** narrowly elliptic, apex narrowly obtuse-emarginate, ca. 43-46 x 20-22 mm, inconspicuously white-lepidote inside, glabrous outside, free, ecarinate, green toward the base except for the wine apex and apical margins, thick-coriaceous near the base, thinly coriaceous toward the apex; **petals** linear or nearly so, apex narrowly obtuse but appearing acute due to the enrolling margins, ca. 110 x 8 mm, yellow at base and adaxially, dark yellowish-wine abaxially and at apex, strongly recurved at anthesis and completely exposing the stamens, becoming pendent-flaccidescient afterwards, bearing at base 2 linear, obtuse to subacute, entire, 33-34 x 2-2.5 mm appendages adnate to the petals for ca. 28 mm; **stamens** exerted at anthesis, suberect and radially disposed, exceeding the petals; **filaments** terete, white, the antesealous ones free, the antepetalous ones adnate to the petals for ca. 4 mm, strongly plicate toward the apex after anthesis; **anthers** linear, ca. 16 mm long, base sagittate, apex obtuse, fixed near the base; **pollen** ellipsoidal, sulcate, exine reticulate, lumina rounded, muri narrowed; **style** distinctly exceeding the petals, white; **stigma** conduplicate, spreading-contorted, densely papillose, white, blades ca. 4 mm long; **ovules** caudate.

Alcantarea distractila is close related to *A. extensa*, but can be distinguished from it by the shorter leaf blades (43-45 vs. 80-100 cm long), the reduced number of branches

of the inflorescence (2 to 4 vs. 8 to 9 in number), the lateral ones spreading-decurved with ascending apex, much longer (ca. 105 cm vs. to 65 cm long), flowers longer (13-14 cm vs. 9-11 cm long), and by the longer petals (ca. 11 cm vs. to 8 cm long).

The specific name of *A. distractila* refers to branches well apart from each other and so distinctly separated, on the basis of the Latin word “*distractilis*”.

Alcantarea distractila was discovered forming large populations on almost vertical cliffs protected at their foothills by remaining Atlantic forest vegetation. It shares its habitat with other rupicolous bromeliad species, like *V. apparicana*, as well as *Tillandsia tenuifolia*.

Alcantarea lurida Leme, sp. nov. Type: Minas Gerais, Coronel Fabriciano, em direção à Braúnas, ca. 400 m elev, 25 May 2000, E. Leme 4898 & B. R. Silva, fl. cult. Jan. 2007 (Holotype, HB. Isotype RB).

A *A. extensa* L. B. Sm, cui affinis, sed scapus rubrus, rache inflorescentiae rubra, ramis later-alibus brevioribus, bracteis floriferis irregulariter sulcatis, floribus longioribus pallide flavidis et petalis longioribus differt.

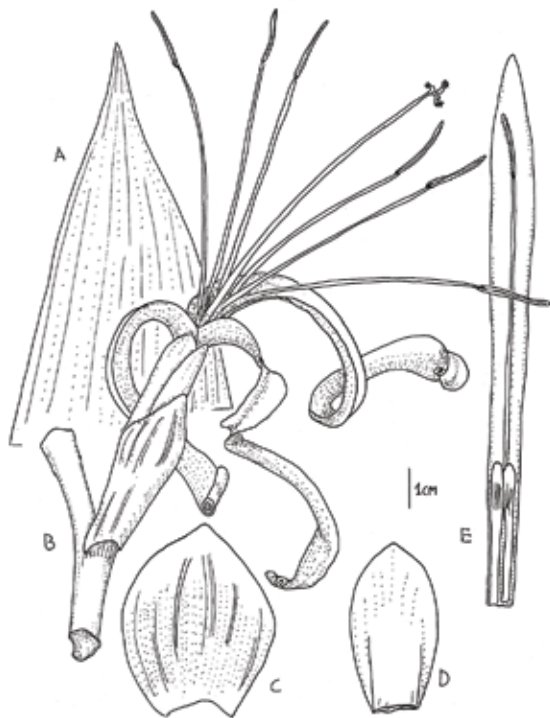


Figure 5: *Alcantarea lurida* Leme: A) leaf apex; B) flower; C) floral bract; D) sepal; E) petal.

Plant rupicolous, flowering 170-180 cm high; **Leaves** ca. 18 in number, densely rosulate, suberect, forming a broadly crateriform rosette; **sheaths** broadly elliptic-ovate, 21-23 x 15-16 cm, inconspicuously and minutely brown-lepidote, pale colored; **blades** linear or nearly so, not narrowed at base, 57-61 x 8.5-10 cm, coriaceous, inconspicuously and sparsely white-lepidote abaxially to glabrescent, adaxially green, abaxially green suffused with reddish-wine mainly along the margins and toward the apex, apex acuminate, shortly caudate. **Scape** stout, 84-90 cm long, ca. 2 cm in diameter, erect, glabrous, red; **scape bracts** the basal ones subfoliaceous, the upper ones broadly ovate, acuminate-caudate, 9-15 x 6-7 cm, suberect with strongly recurved-recoiled apex, its basal portion enfolding the scape and with distinct water-holding



Figure 6: *Alcantarea lurida* Leme which flowered in cultivation (photo E. Leme).

capacity, distinctly exceeding the internodes but not hiding the scape, green except for the sometimes pale reddish base, inconspicuously and sparsely white-lepidote to glabrous, covered by white epicuticular wax. **Inflorescence** paniculate, bipinnate, 74-96 cm long (including the terminal branch), 60-75 cm in diameter, erect, rachis stout, red; **primary bracts** resembling the upper scape bracts but smaller, shorter than the sterile bases of the branches; **branches** 11 to 13 in number (including the terminal one), the lateral branches 30-36 cm long (basal ones) to 20-26 cm long (upper ones), suberect-spreading, densely flowered in early anthesis to subdensely to laxly flowered afterwards, 5 (upper ones)- to 11 (basal ones)-flowered, rachis geniculate, subterete to slightly angulose, 1-2 x 0.4-0.7 cm, glabrous, apple green to yellowish-green, stipes 9-16 x 0.7 cm, terete, reddish to red toward the base, glabrous, bearing 1 to 2 sterile bracts exceeding the internodes and arranged at the apex of the stipes, carinate, the terminal branch resembling the lateral ones, erecto to suberect-recurved, 27-32 cm long, 9- to 11-flowered, stipe 9-10 cm long, bearing ca. 2 sterile exceeding the internodes, ecarinate; **floral bracts** suborbicular, 40-46 x 37-40 mm, pale greenish-yellow toward the apex and the apical margins, pale castaneus-yellowish toward the base and centrally, inconspicuously and sparsely white-lepidote inside, glabrous outside but covered by white epicuticular white wax, almost completely enfolding the sepals and equaling 2/3 to 3/5 of its length, cymbiform and distinctly convex, irregularly longitudinally sulcate at anthesis, ecarinate or the basal ones sometimes obtusely carinate, apex obtuse to subacute, the upper ones densely imbricate in before and at early anthesis. **Flowers** sub-distichous, divergent, odorless, densely arranged toward the apex in the early anthesis to subdensely or sparsely arranged afterwards, 13.5-15.5 cm long (with petal extended, including the stamens), pedicels stout, 13-15 mm long, ca. 10 mm in diameter at apex, green, glabrous; **sepals** oblong-elliptic to narrowly obovate, 42-43 x 20-22 mm, inconspicuously and sparsely white-lepidote inside, glabrous outside, free, ecarinate, pale greenish-yellow toward the base and yellowish near the apex, thick-coriaceous near the base, thinly coriaceous toward the apex, apex narrowly obtuse to broadly acute; **petals** linear or nearly so, apex narrowly obtuse, 125-142 x 9-11 mm, pale yellow, strongly twisted recurved at anthesis with recoiled apex, completely exposing the stamens, becoming pendent-flaccidescens afterwards, bearing at base 2 linear, obtuse to emarginate, entire, 30-38 x 3 mm appendages adnate to the petals for 25-23 mm; **Stamens** exerted at anthesis, shorter than the petals; **filaments** terete, white, the antesealous ones free, the antepetalous ones shortly adnate to the petals; **anthers** linear, 15-18 mm long, base sagittate, apex obtuse, fixed near the base; **style** about equaling the petals, white; **stigma** conduplicate, spreading-contorted, densely papillose, white, blades ca. 3.5 mm long.

This new species is morphologically related *Alcantarea extensa*. However, *A. lurida* differs from it by the red scape and the red rachis of the inflorescence, as well as by the lateral branches distinctly shorter (20-36 cm vs. to 65 cm long), floral bracts irregularly sulcate, flowers longer (13.5-15.5 cm vs. 9-11 cm long) and pale yellow, and the longer petals (12.5-14.2 cm vs. to ca. 8 cm long).

Despite not being closely related, *A. lurida* can be also compared to *A. beloisae* J. R. Grant, distinguishing from it by leaf blades not covered by any densely layer of white powdery scales (white epicuticular wax), inflorescence longer and broader (74-96 x 60-75 cm vs. ca. 41 x 34 cm), primary bracts distinctly shorter than the stipes (vs. about equaling the stipes), branches longer (20 [apical] - 36 [basal] cm vs. 16-20 cm long), stipes distinctly longer (9-16 cm vs. 1.6-3.6 cm long), floral bract suborbicular (vs. broadly elliptic) and larger (40-46 x 37-40 mm vs. 32-35 x 24-26 mm), flowers longer (13.5-15.5 cm vs. 10-10.5 cm), sepals larger (42-43 x 20-22 mm vs. 30-33 x 14-16 mm), petals pale yellow (vs. bright golden yellow), longer (125-142 mm vs. 85-86 mm), and by the longer anthers (15-18 mm vs. 10-11 mm).



Figure 7: Flower details of *Alcantarea lurida* Leme in early anthesis.

Alcantarea lurida was found growing on inclined rock surface along the road from Coronel Fabriciano to Braúnas, in Minas Gerais State, in a strongly depleted habitat in the domain of the locally almost extinct Atlantic forest, forming a comparatively small remaining population. Its name came from the Latin “*luridus*”, meaning the pale yellowish color of its floral bracts and flowers.

Literature Cited:

Barfuss, M. H. J., R. Samuel, et al. (2005). “Phylogenetic relationships in subfamily Tillandsioideae (Bromeliaceae) based on DNA sequence data from seven plastid regions.” *Am. J. Bot.* **92**: 337-351.

Luther, H. (2006). *An alphabetical list of bromeliad binomials 10th edition*. Sarasota, FL, Bromeliad Society International.

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Three New *Cryptanthus* Species from Espírito Santo and Bahia, Brazil

Elton M. C. Leme, Ludovic J. C. Kollmann & André Paviotti Fontana. Illustrations by E.M.C. Leme.

The genus *Cryptanthus* has 60 species (Luther, 2006; Leme & Siqueira-Filho, 2006) restricted to Brazil. They are mainly terrestrial, rarely saxicolous, and are generally sciophilous, with some heliophilous species. Two subgenera are recognized: the type subgenus and *Hoplocryptanthus* Mez (Ramírez, 1996; 1998).

Plants of the type subgenus are characterized by the presence of odorless flowers that are andro-monoecious; the male flowers are located mainly in the mid- to apical sector of the inflorescence while the perfect flowers are concentrated in the basal fascicles. The petals are nearly always sublinear-lanceolate with length equal to five times or more maximum width. The stigma has well-developed blades that are conduplicate and arcuate but not spiraled. The fruits are berries with few seeds (usually less than eight), 3.5 mm or more long.

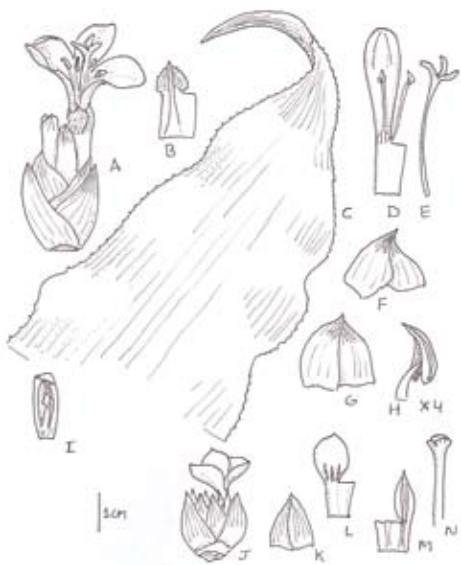


Figure 1. (A-I) *Cryptanthus giganteus* Leme & Fontana: A) basal fascicle; B) sepal; C) leaf apex; D) petal; E) style and stigma; F/G) floral bracts; H) anther; I) ovary cross-section. (J-N) *Cryptanthus sanctalucia* Leme & L. Kollmann: J) basal fascicle; K) floral bract; L) petal; M) sepal; N) style and stigma.

Species of the subgenus *Hoplocryptanthus* are distinguished by the usually strongly perfumed flowers which are perfect, with petals broadly spatulate or obovate, length up to three times the width of the lobes, which may be almost orbicular. The stigma is compact, simple-erect, with short, wide blades; or the stigmatic blades are slenderly tubular and conduplicate at extreme apex. The fruits have more seeds (> 10) and the seeds are small (ca. 1.5 mm long) (Leme & Siqueira-Filho, 2006).

In the present paper one new species of *Hoplocryptanthus* (i.e., *Cryptanthus sanctalucia*) and two new species of the type subgenus (i.e., *C. giganteus* and *C. crassifolius*) are presented.

Cryptanthus sanctalucia Leme & L. Kollmann, sp. nov. Type: Brazil. Espírito Santo, Santa Teresa, Valsugana

Velha, Estação Biológica de Santa Lucia, near the waterfall, Aug. 2005, L. Kollmann 8215, cult. E. Leme 6699 (Holotype, MBML).

A *Cryptanthus robertokautskyi* Leme, cui affinis, laminis foliorum subtus haud zonatis, scapo distincto 11-15 cm longo, bracteis floriferis integris vel apicem versus remote spinulosis, sepalis brevioribus et antheris brevioribus differt; a *C. scaposus* E. Pereira, cui proxima, foliis plus numerosis, laminis foliorum duplo latioribus, scapo robustiore, sepalis brevioribus et petalis laminis suborbicularibus latioribusque differt.



Figure 2. Habit of *Cryptanthus sanctalucia* Leme & L. Kollmann in bloom.



Figure 3. Details of the flowers of *Cryptanthus sanctalucia* Leme & L. Kollmann.

Plant terrestrial, flowering 21-25 cm tall, stemless, propagating by short basal shoots. **Leaves** 8-15 in number, suberect-recurved, forming a lax rosette, slightly coriaceous mainly toward the base; **Sheaths** subtriangular, inconspicuous, ca. 2 x 4 cm, pale colored, glabrescent toward the base, densely and coarsely white-lepidote at apex, densely spinulose toward the apex, spines reddish, membranaceous; **Blades** sublinear, attenuate and ending in an acuminate-caudate apex, 43-65 x 2.5-3.3 cm, slightly narrowed and distinctly canaliculate toward the base, channel U-shaped, without a distinct thicker median zone, dark green except for the base sometimes reddish, upper and lower sides strongly contrasting, adaxially inconspicuously and sparsely to subdensely white lepidote, abaxially completely covered by a coarse layer of white trichomes, margins slightly undulate, densely spinose, spines 0.5-1 mm long, 2-5 mm apart, antrorsely uncinat, green to reddish; **Scape** distinct, 11-15 cm long, ca. 1 cm in diameter, green, densely pale lepidote; **Scape bracts** foliaceous, suberect-arcuate, much exceeding the inflorescence, not hiding the scape; **Inflorescence** elongate, many-flowered, 6.5-7.5 cm long, ca. 3.5 cm in diameter (not including the primary bracts); **Primary bracts** foliaceous to subfoliaceous, spreading-recurved; **Fascicles** 10-11 in

number, pulvinate, 16-17 x 14-16 mm long (excluding the petals), ca. 8 mm thick, 10- to 12-flowered, laxly disposed at base, densely disposed toward the apex; **Floral bracts** triangular-ovate, acute and apiculate, submembranaceous toward the base and margins, green to reddish along the margins and the central keel, outside densely and coarsely white-lepidote toward the apex, inside glabrescent, about equaling the sepals, entire to remotely spinulose, alate-carinate (the outer ones) to obtusely if at all carinate (the inner ones), 13-15 x 9-12 mm; **Flowers** all perfect, sessile, 24-27 mm long, strongly fragrant; **Sepals** elliptic-lanceolate, acute and apiculate, 10-11 x 2.5-3 mm, connate at base for ca. 4 mm, entire, pale colored but soon stramineous, pale brown-lepidote, the adaxial ones alate-carinate with keel decurrent on the ovary, the abaxial one ecarinate; **Petals** spatulate, 20-22 x 8-9 mm, connate at base for ca. 8 mm, white, the free lobes suborbicular, subacute and apiculate, distinctly exceeding the stamens, without a evident callosities, basal tube very narrow; **Filaments** ca. 11 mm long, equally adnate to the petals for the length of its tube; **Anthers** ca. 2.5 mm long, dorsifixed near the base, base sagittate, apex acute; **Pollen** ellipsoid, sulcate, psilate or inconspicuously brochate; **Style** surpassing the anthers; **Stigma** simple erect, white, blades spatulate, erect, ca. 1 x 0.5 mm, not contorted nor spiral, margins shortly crenulate to subentire; **Ovary** 4-5 x 4 mm, trigonous, whitish, sparsely lepidote; epigynous tube lacking; placentation apical; ovules numerous, obtuse; **Fruits** unknown.

This new species is closely related to *C. robertokautskyi*, but differs from it by the leaf blades not crossbanded abaxially (vs. distinctly crossbanded abaxially by the alternation of white and brown trichomes), scape well developed, 11-15 cm long (vs. scape nearly absent), floral bracts entire or remotely spinulose toward the apex (vs. densely spinulose at apex), sepals shorter (10-11 mm x ca. 15 mm long), anthers shorter (ca. 2.5 mm vs. 4-6 mm long). On the other hand, *C. sanctaluciae* is also related to *C. scaposus*, differing from it by its more numerous leaves, leaf blades twice as broad (2.5-3.3 cm vs. 1-1.2 cm wide), scape stouter, sepals shorter (10-11 mm vs. ca. 16 mm long), petals with blades suborbicular and broader (vs. broadly elliptic; 8-9 mm vs. ca. 7 mm wide).

Cryptanthus sanctaluciae was found growing saxicolously in association with *Selaginella* and *Anthurium* species on shaded and humid rocky walls inside the Atlantic forest of the Santa Lucia Biological Reserve. In this reserve recent field works revealed some new species of several families, which indicate the great biodiversity of the area. This new species shares its habitat with other interesting bromeliad species, like *Aechmea castanea*, *Neoregelia guttata*, *N. pauciflora*, *Nidularium cariacicaense*, *Tillandsia kautskyi*, *Vriesea gracilior*, *V. racinae*, *V. ruschii* to name a few.

Paratype: Espírito Santo, Santa Teresa, Valsugana Velha, Estação Biológica Santa Lúcia, trilha à esquerda a partir das proximidades do túmulo de Augusto Ruschi, 19° 58'68" S, 40°31'61" W, 747 m elev., 1 Oct. 2006, E. Leme 6947, L. Kollmann & M. Zanoni (HB); ibidem, 29 Sept. 1998, L. Kollmann 622, E. Bausen & W. Pizzolo (MBML); ibidem, 2 Sept. 2005, L. Kollmann 8437, A. P. Fontana & C. Esgário (MBML).



Figure 4. *Cryptanthus giganteus* Leme & Fontana in its natural environment.



Figure 5. *Cryptanthus giganteus* Leme & Fontana which flowered in cultivation.

Cryptanthus giganteus Leme & A. P. Fontana, sp. nov. **Type:** Espírito Santo, São Roque do Canaã, district of São Jacinto, Saúde, Bacia hidrográfica do Rio Doce, Sub-bacia do Rio Santa Maria do Rio Doce, property of Luiz Antonio Marianelli, 19°42'08" S, 40°36'51" W, 196 m elev., E. Leme 6919, A. P. Fontana, L. Kollmann & M. Zanoni, fl. cult. Dec. 2006. (Holotype, HB. Isotype, MBML).

Species nova a *C. minarum* L. B. Sm., cui proxima, sed laminis foliorum latioribus, bracteis foriferis altitudinem ovarii vix superantibus, sepalis longioribus, basi 10-13 mm connatis differt; a *C. pseudopetiolatus* Philcox, affinis, sed foliis coriaceis, laminis foliorum latioribus apice abrupte longe acuminatis, bracteis floriferis duplo vel triplo latioribus, petalis latioribus differt.

Plant terrestrial, stemless, propagating by short, basal shoots. **Leaves** 7-12 in number, suberect to subspreading before anthesis, spreading at anthesis, laxly disposed and forming an open oval rosette; **Sheaths** inconspicuous, whitish, glabrescent, distinctly rugose abaxially, entire or nearly so; **Blades** lanceolate, apex abruptly long acuminate and strongly recurved, 40-60 x 5.5-7 cm, distinctly narrowed toward the base but not petiolate, coriaceous, without any conspicuous thicker central zone, green to bronze colored, distinctly canaliculate toward the base and nearly flat toward the apex, densely and coarsely white lepidote abaxially, trichomes completely obscuring leaf color and distinctly contrasting with the glabrous and lustrous adaxial surface, nerved mainly near the margins, margins slightly undulate toward the apex, densely spinulose, spines triangular, nearly straight to slightly antrorse-uncinate, 0.5-1 mm long, 1-5 mm apart. **Inflorescence** ca. 4 cm long, ca. 4 cm in diameter, sessile; **Primary Bracts** foliaceous; **Fascicles** 6-7 in number, the basal ones ca. 37 mm long (excluding the petals), ca. 20 mm wide, ca. 3-flowered; **Floral Bracts** hyaline and glabrous except for the coarsely

brown-lepidote and densely nerved-corrugate apex, slightly exceeding the ovary and to equaling 1/3 of sepals length, margins entire or remotely denticulate, the ones of the fascicles broadly triangular to suborbicular, acute and apiculate, strongly carinate, 17-20 x 14-22 mm; **Flowers** 47-58 mm long (with extended petals), sessile, those of the upper central part of the inflorescence staminate and smaller, those of the outer lower part of the inflorescence perfect; **Sepals** 18-20 mm long, connate for 10-13 mm, whitish toward the base, lobes suborbicular to obcordate, acute and distinctly apiculate, subdensely and coarsely brown-lepidote and corrugate, 7-8 x 6-7 mm, symmetrical, obtusely carinate, margins irregularly spinulose-eroded; **Petals** narrowly subspatulate, apex rounded, 36-43 x 8-9 mm, white or the apex pale greenish, exceeding the stamens but suberect-recurved at anthesis and exposing them, connate for 12-14 mm, bearing 2 conspicuous callosities at the base of the free blades; **Filaments** 27-30 mm long, equally adnate to the petals tube; **Anthers** ca. 3 mm long, fixed at 1/3 of its length above the base, base sagittate, apex acute; **Pollen** subglobose, sulcate, exine reticulate, lumina polygonal, muri narrow; **Stigma** conduplicate, suberect-recurved, exceeding the anthers, lobes with margins scalloped-glandulose and undulate. **Ovary** subclavate, 12-14 x 6 mm, trigonous, whitish, glabrous; epigynous tube lacking; placentation apical; ovules few, obtuse. **Fruits** unknown.

This new species is closely related to *C. minarum* differing from it by the leaf blades broader (5.5-7 cm vs. ca. 3.5 cm wide), floral bracts slightly exceeding the ovary (vs. equaling the midpoint of the sepals), and by the longer sepals (18-20 mm vs. 15 mm long), higher connate at base for 10-13 mm (vs. ca. 8 mm connate). On the other hand, *C. giganteus* also presents morphological affinity with *C. pseudopetiolatus*, but it can be distinguished from it by the coriaceous leaves (vs. more thinly coriaceous and pliable), leaf blades broader (5.5-7 cm vs. ca. 4 cm wide) with a apex abruptly long-acuminate (vs. apex attenuate, long-acuminate-caudate), floral bracts twice to three times broader (14-22 mm vs. ca. 6 mm wide), and by the broader petals (8-9 mm vs. 4-5 mm wide).

Cryptanthus giganteus was found growing terrestrially on the deep shaded floor of a dry, semideciduous vine-rich Atlantic forest fragment in the low altitudinal lands of the Municipality of São Roque do Canaã, which is characterized by only two distinct climatic seasons; a dry one followed by a rainy period. This new species was observed in only two ecologically similar neighboring areas of three and six hectares respectively, which were explored for timber about 45 or 50 years ago. The older tallest trees of the original forest can not be seen anymore, except for few remaining isolated specimens of 25-30 m tall in great contrast with the average 15 m tall of most existing trees.

In the collected area, *C. giganteus* forms a sparsely distributed population of one to three isolated individuals characterized by its very long and broad leaves – which inspired its name – of green to bronze color. Although the known areas of occurrence of this new species are now under regular protection, very probably *C. giganteus* was discovered on the brink of extinction.

Paratype: Espírito Santo, São Roque do Canaã, district of São Jacinto, Saúde, Bacia hidrográfica do Rio Doce, Sub-bacia do Rio Santa Maria do Rio Doce, property of Luiz Antonio Marianelli, 2 Sept. 2005, L. Kollmann 9400, A. P. Fontana, E. Leme & M. Zanoni (MBML); ibidem, 19°42'05.7" S, 40°36'40.1" W, 170 m elev., 26 Nov. 2005, A. P. Fontana 1839 & A. Margon (MBML).



Figure 6. Floral details of *Cryptanthus crassifolius* Leme.

Cryptanthus crassifolius Leme, sp. nov. **Type:** Bahia, Ituaçu, Vale do Rio Mato Grosso, 18 Mar. 2002, M. Moreira, fl. cult. Dec. 2005, E. Leme 6059. (Holotype, HB).

Species nova a *C. diamantinensis* Leme, cui affinis, sed laminis foliorum crasse coriaceis, marginibus inconspicue undulatis, inflorescentia distincte composita, petalis angustioribus, distincte callosis et antheris brevioribus differt.

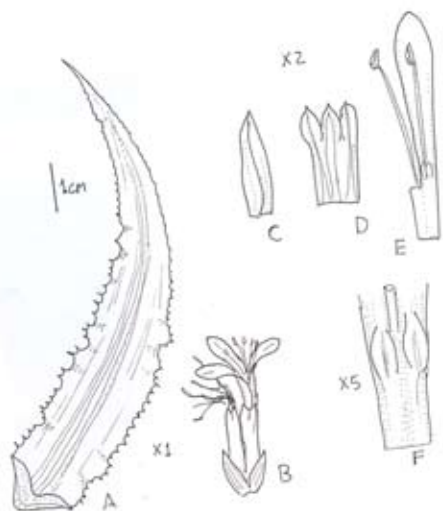


Figure 7. (A-F) *Cryptanthus crassifolius* Leme: A) apical portion of the leaf blade; B) basal fascicle; C) floral bract; D) sepals; E) petal; F) details of the petal appendages.

Plant terrestrial, stemless, propagating by slender stolons 8-12 cm long, ca. 0.3 cm in diameter. **Leaves** ca. 10 in number, spreading-recurved before and at anthesis, laterally curved, laxly disposed and forming a flat oval rosette; **Sheaths** inconspicuous, subreniform, densely spinulose toward the apex, inconspicuously white lepidote; **Blades** sublinear-lanceolate, 10-12 x 1.2-1.5 cm, slightly if at all narrowed near the base, strongly coriaceous and thick, ca. 2.5 mm thick near the middle, without a succulent central zone, abaxially densely and coarsely white-lepidote, trichomes completely obscuring the leaf color and contrasting with the adaxial surface, adaxially densely white-lepidote to glabrescent with age, bronze colored to reddish, apex acuminate-caudate, margins inconspicuously undulate toward the base, densely spinulose, spines narrowly triangular, prevailing straight, reddish near the base, 0.5-1

mm long, ca. 2 mm apart. **Inflorescence** ca. 2 cm long (excluding the petals), ca. 1.2 cm in diameter, sessile, few-flowered; **Primary bracts** foliaceous; **Fascicles** ca. 3 in number, the basal ones ca. 18 x 8 mm (excluding the petals), bearing ca. 2 flowers; **Floral bracts** sublinear-lanceolate, acute and apiculate, ca. 10 x 2.5 mm, whitish-hyaline, glabrous to inconspicuously lepidote, finely nerved, slightly exceeding the ovary, margins entire to remotely irregularly eroded at apex; **Flowers** ca. 35 mm long (with extended petals), sessile, slightly fragrant, perfect flowers not detected, prevailing staminate ones; **Sepals** ca. 11 mm long, connate for ca. 8 mm, the free lobes symmetrical, oblong-elliptic, acute and apiculate, ca. 3 x 1.5-2 mm, entire but irregularly eroded, stramineous, the posterior ones carinate mainly toward the apex, sparsely and inconspicuously lepidote toward the apex mainly along the margins, trichomes frimbriate; **Petals** narrowly subspathulate, apex subacute to obtuse, 23-27 x 3-3.5 mm, white, exceeding the stamens but suberect-recurved at anthesis and exposing them, connate for ca. 6 mm, bearing 2 conspicuous callosities ca. 9 mm above the base; **Filaments** ca. 20 mm long, ca. 1 mm in diameter, terete, white, the antipetalous ones adnate to the petal for ca. 8 mm, the antisepalous ones adnate to the petals tube and free above it; **Anthers** ca. 2 mm long, fixed at 1/3 of their length above the base, base sagittate, apex obtuse; **Pollen** subtrapeziform, apparently sulcate, exine irregularly foveolate with tendency to insulate, lumina large to small, rounded to elongate; **Ovary** ca. 7 x 3.5 mm, trigonous, whitish, glabrous; epigynous tube ca. 1.5 mm long, narrowly funnelform; placentation apical; ovules obtuse. **Fruits** unknown.

Cryptanthus crassifolius is close related to *C. diamantinensis*, but differs from it by the leaf blades thickly coriaceous with margins inconspicuously undulate toward the base only (vs. distinctly undulate), inflorescence distinctly compound (vs. pseudosimple),

petals narrower (3-3.5 mm vs. 5-6 mm wide) and bearing well developed callosities (vs. without any callosity), and by the shorter anthers (ca. 2 mm vs. 3-4 mm long).

According to the information provided by its collector, *Cryptanthus crassifolius* thrives in the valley of Mato Grosso River, in the domain of the "Campos Rupestres", in shrubby vegetation. It was found in growing terrestrially amidst rock outcrops in more or less open and sun-exposed areas.

Figure 8. *Cryptanthus crassifolius* Leme flowering in cultivation. Full-size photo on the back cover.



Acknowledgments

We would like to thank the Museu de Biologia Prof. Mello Leitão for its logistical support, as well as its Director and the Curator of the Herbarium MBML, Helio de Queiroz Boudet Fernandes, for all his support and encouragement. We also thank Marcello Moreira, from the Universidade Estadual do Sudoeste da Bahia, for providing the living specimens of *Cryptanthus crassifolius* used in this study.

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Neoregelia Species that aren't Species.

Derek Butcher – Cultivar Registrar.

Amongst my many plant identification queries there are two that I would like to address here. It revolves around the problem when you are told your plant is wrongly identified but no suggestion is made as to its true identity. Most are reluctant to put *Neoregelia not melanodonta* or *Neoregelia not punctatissima* on the label. This can be solved by giving the plant a cultivar name!



Neoregelia 'Punctate' photographed by Paul Wingert.

Neoregelia punctatissima featured as a photograph by Moir in J. Brom. Soc. 24: 197. 1974. Nobody has queried this photograph other than in Australia when Bill Morris wrote about it in Bromelletter 22(2): 8. 1984. Nobody bothered when Lyman Smith wrote in 1979 "Doubtfully in Cultivation". Nobody bothered that Harry Luther wrote in J. Brom. Soc 33:224. 1983 "Known from type material only, all cultivated material is referred to *N. ampullacea*"

How do I know this? This clone is a favourite with hybridists! Paul Wingert from Michigan has been very helpful in providing a photograph of what is currently called 'punctatissima' which equates in my mind to the Moir photograph. Whether it is a *Neoregelia ampullacea* I leave to the taxonomist but I'll be calling it *Neoregelia* 'Punctate' for the Register. Whoever is growing *N. punctatissima* var. *rubra* can call this 'Punctate Red'. For those who not bother to change their labels I have added a note under *Neoregelia punctatissima* on the species data base held in <http://fcbs.org>



Neoregelia 'Melan' photographed by Ted Johnson.

Neoregelia melanodonta features in many hybrids too, much to my chagrin. The plant with this name is a smaller but special version of *N. concentrica*. If we look at Lyman Smith's description we read about black spines but that is where the similarity ends, the main difference being that the inflorescence is only 1cm in diameter! Again we read from Luther in J. Brom. Soc 33(9):223. 1983 "No presently grown material seems a close match to the type and these are doubtfully distinct from *N. concentrica*". Because this clone will continue to be popular I have decided to put it into the register as *Neoregelia* 'Melan' and also put a reference in the species data base. Thanks to Ted Johnson of California for providing the photo and inspiration.

Both these clones have a long history in cultivation and you never know if or when plants are found in the wild that can be truly linked to the species names.

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A Note About *Pitcairnia oliva-estevae*

F. Oliva-Esteve



Pitcairnia oliva-estevae flowering in cultivation.

When I invited Jason R. Grant to visit Venezuela in April 1999, I immediately took him to the Andes where the flora is very rich and abundant, and the climate is temperate. Among the many species encountered was a stunning pitcairnia that I had first found in May 1995. Then I was with Bruno Manara and we saw the plant growing at aprox. 1250 meters on the road to the Andean city of Boconó, between Biscucuy and Campo Elías on the boundaries of Portuguesa and Trujillo States, Venezuela. This pitcairnia was published in my book "Bromeliads" (2000) p. 18 as "Pitcairnia sp." Four years later, on that trip with Jason in April 1999, on our way towards Boconó we saw brilliant red spikes intermittently along the road to a talus. We turned back to observe them carefully and, to our surprise, it appeared to be the same pitcairnia that Bruno and I found in 1995. We took pictures, made samples, and got some living side-shoots to take home.

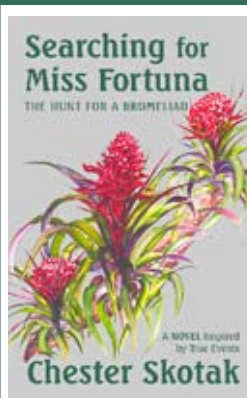
Later, back in Caracas, I gave some small plants of that unidentified pitcairnia, now named *Pitcairnia oliva-estevae*, to my good friends Dr. Stephan S. Tillett, a botany professor at the Faculty of Pharmacy of the Central University of Caracas, and his wife Renate Höning de Tillett. Renate told me she planted it in the shade of a tree in San Diego, a small town 30 km from Caracas at about 1350 m altitude. San Diego has a temperate climate similar to that of the Paratype of *Pitcairnia oliva-estevae* found in 1999. After planting it she did not pay much attention to the plant, and I did not think about it anymore. Then about 5 or 6 years later, whilst visiting them on a weekend, during our conversation Renate said to me "Come over here, I have something to show you. Remember that plant you gave me long ago? Now it is in full bloom!" And there it was, an attractive bunch of shoots in full bloom, forming a compact colony. She emphasized that it bloomed every year, between April and May.

At the time I was finishing a new book (Oliva-Esteve 2006) so I contacted Jason asking him what we should do, and what name was going to be given to this pitcairnia and another we found in that region of Biscucuy-Campo Elías-El Batatal during our 1999 trip, as I wanted to have the new species named in time to be included in the

forthcoming book. Eventually the new species were published in this journal (Grant 2007).

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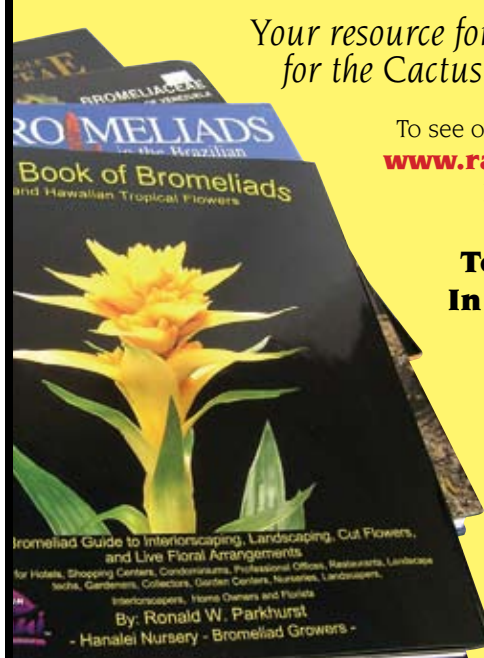
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The Case of The Mysterious Druid

Andrew Flower, BSI Editor. Photos by the author.



Tillandsia 'Druid'
see front cover.

In the shadowy past of human history, before computers and christianity or Della Street, mysterious men and women, Druids, provided learned advice to their tribal leaders.. These days we might call them experts. The trouble with being labelled an “expert” comes when your learned pronouncements are found to run contrary to nasty little “facts” and you can end up sounding like an idiot.

In 2004 I was invited to discuss tillandsias with a group of very keen tillandsia-lovers in Singapore, members of an internet discussion board.¹ Much of the discussion was around *Tillandsia ionantha* with its many forms, and what a difficult plant it was to keep alive. The main efforts they were making involved watering them as often as possible. In my cooler mediterranean-type climate *T. ionantha* is one of the easiest species to grow, so I immediately thought the warmer climate in Singapore was probably the cause. Why?

Many tillandsias are native to cool, low-rainfall areas. As epiphytes, the plants have few, if any, roots capable of taking up water: relying instead on their leaves to absorb it. Plants rely on sunlight, water, and carbon dioxide (CO₂) that is normally taken in through special cells in the plant's leaves or stems during daylight hours. This is usually when the plant is also taking in energy from the sunlight to power its conversion processes (photosynthesis) to manufacture its own food. When the surface cells that absorb the CO₂ are open, water moves out of the plant into the surrounding air. The hotter and drier the air, the faster the moisture loss—so if you are a little tillandsia living in a climate such as an Andian desert that is hot and dry during the daylight hours, and you cannot replenish lost water through a root system, you are going to be burned to death very quickly. Tillandsias, and some other plants, overcome this water-loss problem by absorbing their CO₂ during the cool periods in the evening when water loss is at a minimum (CAM respiration).

I asked the Singapore group what sort of temperature their apartments were at night: 20°C was the answer. Now I could pounce. In my experience, most tillandsias do not absorb CO₂ at night until the temperature is much lower than 20°C. And they do not absorb CO₂ while their leaves are wet because then the water-absorbing trichomes on their leaves flatten down and block the gas-absorbing pores. So I relayed all this wisdom to the group, and most were impressed with my “water your tillandsias in the morning, so they dry out by night, and get the night temperature down...” Then one chap posted a photo of his “*Tillandsia ionantha* Druid” flourishing and flowering in his Apartment. Oops! How could this be?

¹ Now the tillandsia club in the bromeliad section of the Singapore-based Green Culture Forum, www.greenculturesg.com

Research. Where did the plant come from originally? About 35 years ago, six plants of this white-flowered tillandsia were collected near Vera Cruz, Mexico by Drew Schultz (Eloise Beach, JBS 1984 p.19). The plants were later named ‘Druid’ to combine an aura of mystery with his name, ‘Drew’. But Vera Cruz is a tropical port, so maybe this plant population was naturalised near sea-level and adapted to absorbing CO₂ at relatively high night temperatures? If true, the “expert’s” advice might be saved! I checked, and my *Tillandsia* ‘Druid’ did absorb CO₂ at night while the air temperature was 20°C! Most other forms of *T. ionantha* did not - see table.



Tillandsia ionantha, Guatemala.

My tests are simple. Plants are placed in an airtight clear plastic container, and the CO₂ content of the air checked at the start and finish of the test using a Testo 535 meter (cost \$1500). This time, I put dry plants in the box from 8:00pm until 8:00am the next morning, and controlled the air temperature. When plants are not actively taking it in, they slowly leak CO₂, so if the amount of CO₂ in the air increases overnight they *are not* absorbing it. But if the CO₂ in the air decreases overnight then they *are* taking it in, therefore CAM is operating. Tests were done October 9 through 14, 2004, in the order shown in the table (after the first two nights I took more care to avoid breathing into the box when I was putting the plants in).

<i>T. ionantha</i> forms	Overnight range	CO ₂ at 8:00pm	CO ₂ at 8:00 am	overnight change	
<i>T' ionantha</i> Guatemala	21°C	1326	1495	+ 179 ppm	no CAM
T. 'Druid'	20-21°C	1009	788	- 221 ppm	CAM
T. 'Peanut'	20-21°C	614	479	-135 ppm	CAM
<i>T. ionantha</i> AB168	21-22°C	725	778	+53 ppm	no CAM
<i>T ionantha</i> Mexico	20-21°C	597	681	+84 ppm	no CAM

Interesting to see how adaptable these populations of *Tillandsia ionantha* have been. They are supposedly the same species, yet they have adapted to grow naturally in both high and low altitude habitats. A suggestion here: if you want to grow high-altitude plants in a hot low-altitude climate, or vice-versa, *grow them from seed!* Mature plants do not adapt: seedling populations do. Of course, if we think we are conserving species by doing this, the question has to be “what are we conserving?” Possibly, plants that would no longer survive in their native habitat? Letters to the Editor are always welcome!



Tillandsia 'Peanut'

Book Review

Jason Grant

Mountain plants of Venezuela, the Coastal Range, the Andes and the Tepuis: Bromeliads. Oliva-Esteva Ediciones, Caracas, Venezuela. Francisco Oliva-Esteva, 2006. 31 cm, 339 pages, hard cover. ISBN 958-33-9749-0, English.

This is the fourth book on Venezuelan bromeliads by Francisco Oliva-Esteva, following *Bromeliaceas of Venezuela* (1987), *Bromelias* (2000), and *Bromeliaceae III* (2002). It is authored with the collaboration of Stephen S. Tillett, Gilberto Morillo, and Bruno Manara. It is an excellent coffee-table book for browsing through magnificent photos and colored illustrations by Oliva-Esteve.

There is an important introduction by Gilberto Morillo of the University of the Andes, Mérida, Venezuela entitled: *Origin, geology, flora, and vegetation of the mountains of Venezuela*. Sections within this chapter include I: The mountains of the Venezuelan Guayana, II: The mountains of the coastal cordillera and of the Coro system, III: The mountains of the Andes, and IV: The mountains of Margarita Island.

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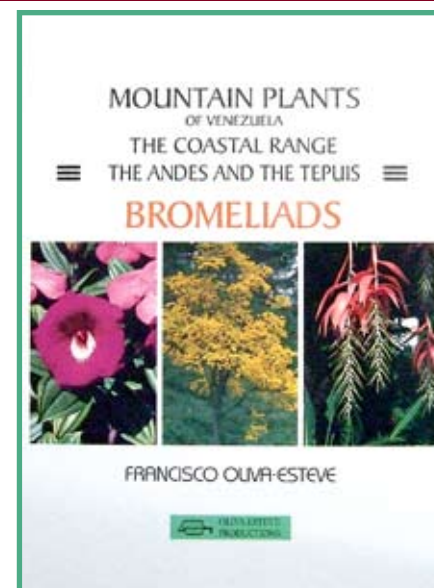
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Otherwise, the main chapters (pages 1-246) are largely photologues of different regions of the country including The coastal range, The Andes, and The Tepuis (Guayana). Within each of these chapters, there are excellent photos of wild or cultivated plants in alphabetical order by family, each with a small description, sometimes with additional information. The most important photos in the book comprise the large collection of color photos of plants and habitats of the tepuis of the Venezuelan Guayana.

Photos of bromeliads comprise pages 247-330. The most interesting photos are of the Venezuela Guayana endemics such as *Navia* and *Lindmania*. The book is a nice addition to our books on bromeliads.



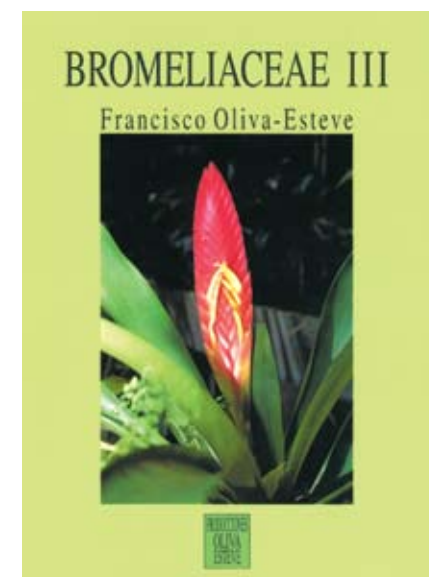
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First in a 4-book series on Tropical Plants and New World Bromeliads. This book of mountain plants of the Neotropics, the Andes and the Highland mesas commonly named Tepuis, (an amerindian word for mountain) treats the northern, western and southernmost area of Venezuela, which is also known as The Guayana Shield or Lost World. It contains 113 families of cone-bearing (Gymnospermae) and flowering plants (Angiospermae) including 23 genera of Bromeliads with 163 species out of which 36 are described and illustrated. This book represents the culmination of 6 years of work with many species described and pictured with spectacular habitats, and photographs showing natural vegetation.

Generally speaking, it is a compendium of a good number of bromeliads, flowering trees, palms, heliconias, orchids, minor plants, and xerophytic species, with 1300 photos, line maps, color drawings, and aerial-photographs. This full color-illustrated book is available in English and Spanish. ISBN Eng. 958-33-9749-0.

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This handsome book on bromeliads was published in 2004 by Producciones Oliva-Esteve in Venezuela. The book is richly illustrated and printed on high-quality coated paper, 9 1/4 by 13 inches (32 x 25 cm).

The opening chapter, "A Short Venezuelan Historical Review of the First Explorers" is followed by text and 564 color photographs describing 29 genera. Among these are 108 species of *Tillandsia*, 38 of *Guzmania*, 34 of *Aechmea*, 17 *Pitcairnia* and 15 *Vriesea*. This book adds new species to those covered in Oliva-Esteve's previous works.

English and Spanish editions available.
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Francisco Oliva
Apartado 17-284
Caracas, Venezuela 1015-A
Telephone: 58-212-(573)4640

Call for Nominations for the Wally Berg Award.

Theresa M. Bert. e-mail: shows@bsi.org

Introduction

The Wally Berg Award of Excellence was initiated in 1999 to honor the late Wally Berg (1927-2000) of Sarasota, Florida. Wally and his wife Dorothy were extraordinary bromeliad growers. Their private collection was one of the most diversified and unique in the world. The garden-and-waterfall setting of their bromeliad gardens was magnificent and immaculate. Wally was an enthusiastic supporter of the BSI. He donated many rare plants for sales and auctions that benefited the BSI, the Bromeliad Identification Center at Selby Botanical Gardens, research on the “Evil Weevil”, and other worthy causes. He volunteered many hours of service at Selby Gardens. He had a broad knowledge of bromeliad horticulture and science and frequently spoke to bromeliad societies on a variety of topics, especially about his adventures exploring and collecting bromeliads in Central and South America. Wally also served the Sarasota Bromeliad Society by holding many offices and donating plants for the society’s activities and sales. He introduced several *Aechmea* cultivars into culture and created several hybrids. He frequently won top awards, including Best in Show at World Bromeliad Conferences and at Florida local and regional bromeliad shows. For his contributions to the “bromeliad world,” a number of bromeliad species were named for him, in his honor.

For a more information about the BSI Wally Berg Award of Excellence, see <http://www.bsi.org> under Judging and Awards. Some of Wally and Dorothy Berg’s achievements and adventures are featured on the Florida Council of Bromeliad Societies’ website: <http://fcbs.org> under Photo Index--Programs--see “Berg Cage” and “Bromeliads in Habitat.”

Following are the award criteria and procedures for nomination. Individuals, couples, or members deceased within the past two years, are eligible. Nominees must be past or present members of the BSI and nominators must be present BSI members in good standing.

Previous recipients of the Wally Berg Award of Excellence

2000 - awarded posthumously to Wally Berg himself
 2002 - Dennis Cathcart
 2004 - awarded posthumously to John Anderson
 2006 - Harry Luther

Award Criteria

1. The individuals must be past or present members of the BSI.
2. The individuals should be bromeliad growers who are nationally or internationally recognized for diversity of species cultivated and excellence of cultivation.
3. The individuals should actively pursue one of the following activities:
 - a. collecting and identifying bromeliads in natural environments, including collecting new species/varieties/cultivars; the members of the various bromeliad societies and organizations, including the BSI and the BIC, should benefit from this activity;
 - b. promoting the appreciation and cultivation of bromeliads at the international level, including such activities as organizing and participating in collecting trips with international representation, giving presentations and seminars to national and international audiences, and writing manuscripts for publication in national or international books, journals, or other media (e.g., Internet, CD ROMS).
4. The individuals should actively support efforts to further the scientific, taxonomic, or cultural understanding of bromeliads through donation of time, effort, or money to recognized organizations, institutions, or groups of individuals (e.g., the BSI, BIC, Selby Botanical Gardens, bromeliad clubs or councils).
5. The individuals should be active in a local, regional, or national bromeliad society and be recognized by other members of that society for their contributions to the functioning of that society and its activities.
6. If the individuals are bromeliad hybridizers, they should be internationally recognized for excellence in one or more of the following categories:
 - a. innovation in creating bromeliad hybrids,
 - b. success in cultivation of bromeliad hybrids,
 - c. promotion and distribution of bromeliad hybrids.
7. The individuals should be generally recognized as experts in one or more of the following aspects of bromeliads:
 - a. ecology, evolution, or taxonomy,
 - b. cultivation or hybridization,
 - c. display or exhibition.
8. The individuals should be generally recognized for their generous nature in sharing knowledge of bromeliads and for personal giving for the benefit of other people interested in bromeliads and for bromeliad organizations at all levels.

Procedures for Nomination

1. Nominators must be present members of the BSI.
2. The nominator should submit the nomination in writing, by either letter or electronic mail. The nominator should provide a brief resume of the accomplishments of the nominee(s) in bromeliad-related activities (e.g., service, offices held, major awards won) and a letter describing the way in which the nominee(s) meets *at least four* of Criteria 2-8 listed above.
3. Past nominees may be re-nominated if they meet the current award criteria. Previous award winners are ineligible for re-nomination.
4. Please send nominations to Theresa Bert, Curator of the Wally Berg Award, 9251 13th Ave. Cir. NW, Bradenton, FL 34209-8305. E-mail: shows@bsi.org. It is strongly recommended that nominations for the award be sent to the curator via electronic mail because this will greatly expedite the process. Thank you.
5. Nominations must be received by April 15, 2008.

The winner's name will be published in the BSI Journal and posted on the BSI website. The winner or his/her representative will receive the award at the 2008 BSI World Conference in Cairns, Queensland, Australia. One award is made every two years, at each BSI World Conference.

Editor's note:

In past years there have been nominations for people who have been worthy for the award but missed out because there can only be one recipient each round.

There is no reason why nominations that were unsuccessful in the past cannot be re-submitted.



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Welcome New BSI Director, Hannelore Lenz



It is an honor to have been nominated for the Western Regional Directorship and I will do my best to serve you and our cherished bromeliads.

In 1994 I retired and truly got busy. My travels took me to Brazil, Argentina, Paraguay, Uruguay, and Australia looking at the most marvelous beaches in the world, also to Tasmania, watching the sheep shearing process and hiking in the Freycinet wilderness. I have traveled to Germany many times and have been to most of the European countries. I spent time with two professional geologists on a mineral exploration in Honduras and snorkeled in the waters of Roatan. I took away a sadness from many of my trips to see so much of the native vegetation being totally wiped out to make room for coffee trees. I enjoyed myself on the big island of Hawaii and reveled in the scents and exotic colors.

In March of this year I traveled to Peru, visited islands in Lake Titicaca, climbed Mt Putusi to photograph the Urubamba river and Machu Pichu from a rarely seen angle and here again I marveled at the bromeliads in their own environment.

My birthplace is in Germany, and when I was four years old and sitting at the dining table with lots of adults, having to mind my manners, being bored on one of the scratchy red upholstered diningroom chairs, I discovered a tiny hole in the upholstery and made it unobtrusively bigger. Soon I was able to extract some stringy dark stuff. Looking at it with interest all eyes focused on me, dinner ended right away. Later grandfather explained to me that the stringy stuff was "Spanish Moss" and came maybe all the way from America. After that, I looked in all sorts of books for things "Spanish" and things "Moss". I don't know what I took away from this search, however many years later in Florida inhaling the fragrance of Tillandsia usneoides in bloom, a thread carried me back to my childhood, to the lessons I learned from my grandfather, to a tiny piece of land and to the dreams of a better world that became true for me in America.

Hannelore sent us a long and fascinating biography, unfortunately too much to print in its entirety. Interested members please contact the Editor, and I will send you a copy. - Ed.

SAN DIEGO BROMELIAD SOCIETY SHOW 2007

Nancy Groves, Awards Chair



Dyckia (marnier-lapostollei var. estevesii X fosteriana) x platyphylla exhibited by Joe Quijada. Winner of Mulford B. Foster Best of Show Horticulture.

The San Diego Bromeliad Show 2007 was spectacular, well attended, and had lots of participation from new members. Joe Quijada stole the show by winning the Mulford B. Foster Best of Show Horticulture award with his *Dyckia (marnier-lapostollei v. estevesii x fosteriana) x platyphylla*; he also won the Morris Henry Hobbs Best of Show Artistic award with his *Encholirium horridum* in a decorative container to which it was perfectly suited. Sweepstakes winner was Tom Knapik who always enters many beautiful Award of Merit and Blue Ribbon winners. Dallas Bradford managed our most successful sales ever. We all learned about each other's plants and cultivation techniques and most importantly, a good time was had by all.

Twenty-one total exhibitors placed 69 entries in Horticulture and 24 in Artistic receiving 35 awards of merit, 39 blue ribbons and 19 red ribbons



Sweepstakes Award winner Tom Knapik exhibited *Neoregelia 'Pemiento'*; a cultivar selected and registered by Chester Skotak from a batch of his cross *N. [(carolinae x concentrica) x 'Royal Burgundy'] X 'Royal Burgundy'*.



Encholirium horridum exhibited by Joe Quijada. Winner Morris Henry Hobbs Best of Show Artistic.

Show Judging: Notes for Exhibitors at the Cairns WBC Show

Larry Giroux

I have seen the results of many Australian Societies' Shows in newsletters and there is no question that Aussies know how to grow bromeliads. I know that exhibitors will be able to fill the show hall tables with unusual and quality plants. I'm writing this article to help the local exhibitors understand what the panels of BSI Judges, who will be evaluating the entries in this first ever Standard BSI Show in Australia, are looking for and what questions they are asking about the plants. Let me give a word about bringing entries by overseas attendees. When the decision to hold the 18th WBC in Cairns was made, it was understood that due to strict plant importation rules, overseas visitors would not be able to exhibit live plants in the horticultural divisions.

The general and specific concepts for preparing a bromeliad for a Standard BSI Show are no different than those for any local or regional Show. Just like any flower show, in a Standard BSI Show the judges ask questions about the presentation and how well the plant was grown (Cultural Perfection), about how your plant compares to the norm for this species or cultivar (Confirmation), about the aesthetic qualities (Color and Markings), about the nature of the bloom, if it is in bloom (Inflorescence) and the maturity (Size). During the 3 years of training of a BSI accredited Judge, they have learned to associate points to these characteristics based on tables found in the "Handbook for Judges, Exhibitors & Affiliates". Each plant is judged on its own "merit" and when there are deficiencies, points are deducted. A score of 95-100 earns an Award of Merit; 90-100 a Blue Ribbon; 85-89 a Red Ribbon and yellow or white for lesser scores. All Award of Merit ribbon winners are then competitively judged first within their section and division and finally within their Category for major awards. Perfection and difficulty of cultivation are ultimately the determining factors by which a plant will win during major award judging.

Exhibitors please use the following questions as a checklist before you give your plants to classification for entry. Obviously for non-blooming Horticultural Entries the questions about the inflorescence are not relevant.

Cultural perfection - Is the container clean? Is the container chipped or cracked? Is the container of the appropriate size? Is the mix the right depth and clean? Is the bromeliad centered in the pot, straight and the correct depth? Are the leaves damaged.... slightly or badly? Are the leaves trimmed...expertly, poorly or drastically? Is leaf removal complete? Is there excessive removal of lower leaves? Do the leaves have uneven growth, i.e. wide and narrow areas? Are there elongated leaves? Are there gaps between the leaves? Are there folded or channeled leaves? Are there mineral deposits, water spots, algae, dust or debris?

Conformation - When viewed from above does the plant appear symmetrical?

In profile, is the typical shape of this plant present? Is the stem straight? Has the cup been pulled off center? Has the natural contours of the plant been destroyed by gaps between the leaves, by too much leaf trimming, by excessive or incomplete removal of lower leaves? Are they the appropriate shape, width and length? Is there the correct number of leaves for this plant?

Color and markings - Is the color maximal for this plant (variety)? Is the color faded or bleached out? Is the color evenly distributed? Is it lighter on one side? Are there color breaks? Is the scurf marred and if so how extensively? Are the bars, hieroglyphics, longitudinal lines, brightly colored leaf tips, which are typical for this variety, present? Are the markings clear and intense? Are the markings evenly distributed?

Inflorescence - is the size optimal, small, average or immature? Evaluation of quantity: Is the inflorescence well branched? Are there mature flowers? Evaluation of quality: Are the bracts undamaged? Have the spent blooms and bracts been removed? Has fallen pollen been removed from the foliage? Are the colors of the flowers bright and not faded? Are the floral and scape bract colors clear and not muddy?

Size - Is the size optimal, 3/4 grown, 1/2 grown, very immature, or overgrown?

A lot of work goes into the creation of the **Show Schedule**, which is the "bible" of the Show. This document contains everything you need to know about your specific show; ever two years it is revised and adapted to each new BSI WBC Show. Copies will be available at your Society meetings in the upcoming months as well as on line at www.bsi.org. Be part of the excitement of this unique event by bringing bromeliads to enter in Cairns, Australia June 2008. For more information please go to www.bromeliadsdownunder.com.

Dyckia estevesii Single Blooming Horticultural entry

A red ribbon was given to this entry- *Dyckia estevesii*. Points were deducted for a badly scratched and damaged pot, poorly trimmed and incompletely removed leaves at base of plant and poor centering in the pot, all of these problems could have been remedied by sinking and repositioning the plant in a new pot prior to the show. The majority of points were taken off for the condition of the leaves and a very bad job of leaf trimming. Nearly all the leaves needed trimming and those that were trimmed were not skillfully done. Proper trimming requires sharp scissors or blade and an attempt to maintain their original tip and shape. This should be done just prior to the show and the cut edges coated with aloe or I have used white school glue, carefully applied only to edges with a brush. Both these methods result in a "callus", which retards browning and drying. Major points were deducted for the condition of the inflorescence. An old stalk stem and bloomed out flowers on a second stalk were left with only an immature spike worthy of display.



Offshore Visitors May Enter Artistic Arrangements at Cairns Conference

Larry Giroux

Although I was excited when I heard that the 2008 World Bromeliad Conference was being held in Cairns Australia, I was also disappointed that I would not be able to enter plants. After discussing this downside of the Conference with Lynn Hudson, Conference Chairperson, we think we have come upon a method which will allow overseas visitors to enter the Artistic Arrangement Division. Of course there are no restrictions on entering original artwork such as quilts, paintings, sculptures, etc. To exhibit a Decorative Container entry, you must enter a complete plant, which you have owned and grown for six months, but this restriction does not apply to artistic arrangements. Live and/or dried materials recently acquired may be assembled into an arrangement just prior to the show. With the help of local bromeliad and plant growers in the Cairns area, we will be providing a selection of bromeliad parts, leaves, sticks and other plant materials that can be used in artistic arrangements for entering in the Show.

Do not bring in any undeclared Plant or Animal material into Australia or you will be fined. All baggage is x-rayed on arrival.

To encourage additional entries in this category, we are including in the schedule a section for Mini-arrangements. These miniature arrangements will use the same themes as the normal sized Artistic entries, but will be restricted to 6 in. (15 cm) cubes with an open front and top. The arrangement will not be allowed to protrude from the space. The same Elements and Principles of Design used to create the normal sized arrangements should apply. The same point scoring will be used by the judges for both types of arrangements. Other than the plant materials, the overseas exhibitors are expected to provide their own containers and materials necessary to assemble their arrangements. We do request that you notify us by May 15th 2008 if you plan to enter any kind of artistic arrangement, so that we have ample space and cubes ready for your entries (contact details below). Themes for entries will be published in the Show Schedule, which is available at www.bsi.org or by writing to us at either of the addresses below.

For those of you who are coming to Australia for the World Bromeliad Conference, I would like to give you an introductory course to artistic arranging. There are several mini-courses available on line, mostly devoted to flower arranging and Ikebana. There are innumerable books available from your club or community libraries on this topic.

Picture 1 "Imagine a Sea of Bromeliads"

Two of the three rules I mention as a guide in this article were not adhered to in this design. **One:** This is far from a simple design. There are nearly 10 different single or multiple clumps of tillandsias with little or no relationship between them. There are also numerous accessories scattered throughout the design. Our eye is confronted with a variety of textures, forms and sizes. The weight of the container and the exposed sand created by size, color dominance of the space, is somewhat overwhelming. Positioning of some of the objects give instability to the design. No distinct line is established; rather, the observer is forced to bounce between one form then another, with no primary directional rhythm or motion. **Two:** The apparent "Sea" theme was literally interpreted, resulting in an underwater scene. In this arrangement the bromeliads are secondary to the design with the sand, coral and shells primary elements to the visual effects. Judges try to write constructive criticism on the back of the entry card for red ribbon winners as in this case. Appropriate comments might be – Although the plant materials are in excellent condition the use of a smaller and a flatter darker base; scattered, darker stones for top dressing rather than sand; fewer plants and allowing these to dominate the design, rather than the marine accessories, would have created a more appealing design.



First keep in mind these three rules-

1. Keep it simple. Limit the types and amount of materials and colors. A busy design is seldom eye appealing.
2. Do not interpret the theme literally. You are not out to create a scene. Think of your design as an abstract painting and convey the theme more subliminally.
3. Although there are rules, which the judges will use to evaluate the entry, this is an artistic work and expressive outlet for you; so be creative and have fun doing it your way.

Just as the vase or piece of wood is a component of your design, the **Elements of Design** are the subjective components of which your arrangement will be constructed.

Space – The real space is what you are given on the pedestal or tabletop or within the cube. You need to consider the scope of your design and how it will fill your given space. The space within and between the plant material and the accessories determines how cluttered your arrangement appears. A good example of "space" is what the difference would be between a clump of flowers in a bucket and the same flowers arranged in an open bouquet.

Line is the one-dimensional component of an arrangement and serves as the primary foundation of the design. Judges are requested to stand about 1 meter (3 feet) from the arrangement when evaluating it. The lines create a skeleton and visual path



Picture 2 "Building with Bromeliads"

This is an example of a Mini-arrangement. The arrangement is to be constructed in a limited cube supplied by organizers. In this case a 6inch or 15cm cube with no front or top is the given "space". The same elements and principles of design should be used with the added rule that the design may not extend beyond the cube dimensions. The same point scoring scheme is applied in judging as used for normal sized arrangements.

for the observer. If the eye loses its way or becomes stalled traveling through your design this is a major fault.

Form on the other hand is three-dimensional. Forms and the shadows on them give perspective and depth to the design. This is seen especially with Ikebana, when flowers are placed in a more natural fashion; some in profile while others face forward.

Size is not only a factor of dimensions, but influenced by weight given to an object by color, texture and pattern. The use of darker containers rather than white is an example of how size can be influenced by color.

Colors just as they affect our moods in our lives, elicit strong reactions to the observer when used in an arrangement. Understanding of the color wheel, what are the warm and stimulating colors, which are the soothing colors and when to use them will go a long way to creating a pleasing and award winning arrangement.

Texture – Although judges are not allowed to touch an exhibit, just as smell can create a taste, our sight feels textures. Textures influence form and color and provide an unobtrusive variety, which creates visual interest.

Pattern results from the assemblage of the lines, forms, shapes and spaces within the design. An example that comes to mind is a design using a flat upright rectangular piece of stone. After assembling and attaching your plant materials, the final pattern your eye sees is a flat rectangle. Instead, if we had used a same sized piece of trellis and had attached the plants and had them crawling their way up and off the wood, we create a pattern that utilized several of our elements and is more pleasing to the observer.

Whether we are observing a house, car or dress, it is the influence of the **Principles of Design**, which determines if something looks appealing. The six Principles of Design as applied to artistic arrangements are usually associated in pairs.

Balance and Rhythm – The design should appear as it follows the laws of nature and not contrived like a tower of cards. **Balance** as determined by the design's visual stability should exist on all planes. Better that it be bottom heavy than top heavy, better to have depth than just two dimensions and better that it have a triangular shape or pyramid shape than a upright rectangle shape. All of this can easily be done with selection of forms, colors, space and textures. **Rhythm** or the movement of our eye on the other hand is created by lines, gradation of the size of objects and change or the lack of it, as we move through the design.

The pair of **Proportion and Scale** refers to amounts and size. **Proportion** references the relationship of the amounts of the elements to each other within the entire design. For example we compare the amount of space to the bulk of objects or the size of the container to the plant mass or one color group to another within the design. This does not mean that all has to equal, but the proportion of the components needs to be consistent throughout the design. **Scale** refers to size in the bigger picture of the design. For example the base or container should not overwhelm the plant material or the design should not be stuffed into the space available. Both these faults are distracting to the overall entry's appearance.

Contrast and Dominance keep the arrangement from being boring and help unite the design. Experience has determined that **Dominance**, which is synonymous with repetition, can be created by letting one color, plant material or form predominate. Introducing a smaller amount of difference or **Contrast** to the predominate elements creates a more interesting look. Excess contrast is an eye stopper and defeats the purpose of other elements.

Artistic bromeliad arranging requires a certain knack as does many artistic endeavors, but as I said earlier, each design is a personal work of art and provides us opportunities to be creative while enjoying our favorite plants even more. Try your hand at Artistic Design; it can feel very rewarding.

Contact us at:

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Australia
lynnie@ledanet.com.au

or: Dr Lawrence Giroux
3836 Hidden Acres Circle N
North Fort Myers FL 33903
United States of America
DrLarry@comcast.net

In New Zealand, contact Dave Anderson (09) 638-8671

Florida East Coast Bromeliad Society

Jay Thurrot

Daytona Beach may be best known for its NASCAR racing history and a wide expanse of white, sandy beach fronting the Atlantic Ocean that is firm enough for automobile traffic, but it is also the home of The Florida East Coast Bromeliad Society (FECBS). This club was formed as a "spin-off" from the Seminole Bromeliad Society (which, in turn spun off from the Central Florida Bromeliad Society) by a group of bromeliad enthusiasts in the Daytona Beach area who didn't want to drive the 100 mile round trip distance to Sanford for the Seminole meetings. The first FECBS meeting was held on June 22, 1993 and took place under shelter of the ruins of an old sugar mill at a local park in Port Orange. Membership at that first meeting, attended by 23 local enthusiasts, elected Art Hyland (deceased) of Orange City as their first president. Art was a retired school teacher and commercial grower who had a particular interest in the Nidularium Genus and contributed articles to the BSI Journal and the Florida Council of Bromeliad Societies newsletter. Soon, the club moved to a more permanent location several miles to the north in Daytona Beach in what was formerly a 1930's vintage home. This house, the Wm. A. Finney Garden Center, was deeded by its owner to a consortium of local garden clubs who share in its ownership and upkeep.



Phil and Betty Dollar point out some of the plants in their yard

One of the first projects undertaken by the newly formed group was the development of a unique insignia or emblem for the club. To this end, a commercial artist was commissioned to draft several possibilities - for a fee which at the time seemed an extravagant amount, but today appears to have been a good investment. The top three choices were presented to the membership, put to a vote and the drawing that you see above was selected. This emblem represents a stylized Vriesea in bloom and can be seen on the last page of each month's issue of the Florida East Coast Bromeliad Society newsletter.



A monumental event in the club's early history took place in 1995, when 6 large boxes of plants arrived from the late John Anderson of Corpus Christi, Texas along with his best wishes for the young organization. Many of these plants were collected by John himself and all were eagerly adopted by club members to establish their own collections. Descendants of those John Anderson plants still turn up a club sales and raffles and are greatly admired.

One of the favorite activities of FECBS is field trips to club members' homes and gardens. Some club members have extensive bromeliad collections incorporated into their landscape. The picture was taken at a recent Club meeting that was held at the home of Phil and Betty Dollar in Deland, Fl.



MEMBERS ONLY SEEDBANK

Acanthostachys pitcairnioides • *strobilacea*.
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Navia arida.
Neoregelia morrisoniana.
Pitcairnia aureobrunea • *bulbosa* • *patentiflora* • *xanthocalyx*.
Racinaea fraseri • *spiculosa* v. *micrantha*.
Tillandsia bartramii • *compacta* • *elongata* • *gilliesii* • *paraensis* • *pseudo-baileyi*.
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In Memory of Alvim Seidel, 1927-2007



Alvim Seidel, longtime grower and collector of bromeliads, passed away on April 10th 2007 from complications caused by a fall in front of his home.

Alvim's father, Roberto Seidel, founded the nursery in 1906. In 1945 he turned the nursery over to Alvim and his brother: Alvim getting the bromeliad and orchid section. He has travelled over 100,000 kilometers collecting bromeliads, with over 14 named after him. Alvim's son Donato will take over the nursery with the help of Donato jr.

The Seidel nursery has been operated by the same family for over 100 years and recently celebrated their centennial.

Alvim has been the backbone of the BSI seed fund for over 25 years by sending seeds almost every month. He was a faithful advertiser in the BSI Journal for over 50 years. He will be greatly missed by many of us in the bromeliad world.

Harvey C. Beltz

Harry Martin dies at age 93



Harry Martin was the BSI Trustee in New Zealand for 45 years, until his death in October 2007.

Harry, along with Bill Rogers and Bea Hanson, was one of the “drivers” in the formation of the Bromeliad Society of New Zealand. His great love for bromeliads saw him take on many important roles including serving as President of the New Zealand society on several occasions. He attended bromeliad conferences and in the early years he was instrumental in keeping New Zealand in touch with bromeliad societies. He was a life member of the Bromeliad Society of New Zealand.

Aside from bromeliads, Harry had a passion for radios. He had a career in radio work, servicing radios for many different organizations including industry, the national broadcasting service, and in a government research unit during World War II. After the war he maintained radio systems on flying boats operated by TEAL (later to become Air New Zealand).

Diane Timmins.

Did You Know?

Message from the President of the Bromeliad Society International, Joyce Brehm

The Bromeliad Society International, Inc. (BSI) sponsors many programs that support the interests of all members of the Society.

Our bylaws state that our purpose is to promote and maintain public and scientific interest in the research, development, preservation and distribution of bromeliads both natural and hybrid. The BSI does its best by sponsoring activities as our budget allows.

By sponsoring and encouraging Affiliate Standard Shows we encourage the public to learn about bromeliads and support and join local Bromeliad Societies. Information for Affiliate Shows is on "Affiliates Only" section of the web site at BSI.ORG. Since we have the best society members showing plants and participating in these shows, the public can become acquainted with Bromeliad plants, and probably purchase some lovely bromeliads.

Each year we sponsor a research fellowship to continue research in work they are doing in bromeliads. He or she then writes the findings in an article for the *Journal of the Bromeliad Society*. Members of the BSI also benefit from this activity.

Recently we funded a research on what the Conservation Chair found was needed for more activity in conservation. With this information we started the Conservation Corner on the web site and parts of this large report were published in the *Journal of the Bromeliad Society*. Unfortunately we do not have the funds to fully sponsor the suggestions.

In the preservation department, we help Marie Selby Botanic Gardens (Selby) preserve and maintain one of the largest collections of living bromeliads and herbarium specimens if not in the world, at least in the United States. We donated \$7,500 dollars to Selby to help purchase a new reverse osmosis system. This funding came from the will of Benjamin Franklin, a member of the Bromeliad Society of San Francisco, bequeathed to the BSI general fund.

Bromeliads are a "New World" plant and grow wild in the United States from Virginia south to Florida and west to Mississippi Louisiana and Texas. The other "New World" plants are in Mexico and South American countries. These countries have avid collectors as well as import and export laws. There are National Parks in

these countries preserving the natural hybrids. BSI does not have enough funding or legislative clout to do more, however the Conservation Chair has suggestions for us to helping their preservation if we had the funds.

Hybrids are made and distributed by many growers, both BSI members and non members. BSI members may register their hybrids with the Cultivar Registration Chair. The registration form is on line and when the information is completed may be submitted along with a picture of your hybrid to cultivars@bsi.org, or mailed to Derek Butcher, 25 Crace Road., Fulham, SA 5024, Australia.

The BSI is recognized as the official source for information on bromeliads. We publish the *Journal of the Bromeliad Society* every other month (6 times a year) which contains both scientific information, sources for distribution and membership information. We are serving the public through our free sections of the web site. We serve all of our members with the information in the *Journal* and the Members Only section of the web site (BSI.ORG). We invite you to check out the website, you are guaranteed to find interesting information.



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EVENTS CALENDAR

Australia

May 3-4 2007, Bromeliad Society of Australia Autumn Show, Burwood RSL, Burwood

June 24-29, 2008, BSI World Conference in Cairns (Australia.) Enquiries to Lynn Hudson, 47 Boden Street, Edge Hill QLD 4870 or lynnie@ledanet.com.au

New Zealand

February 23-24, 2008. Bromeliad Society of NZ Fiesta 2008, Competitive Show & Sale. Mt. Eden War Memorial Hall. Contact Alan Cliffe (09) 479-1451

United States of America

May 3-4, 2008. La Ballona Valley Bromeliad Society Annual Sale & Show. Culver City Veterans, 4117 Overland Ave., Culver City CA. Sat. 10:00-5:00, Sun. 10:00 to 4:00. Culture demonstrations 2:00pm both days. Contact Don Misumi (323) 294-9839, dgmisumi@aol.com

August 2-3, 2008. South Bay Bromeliad Associates Bromeliad Show and Plant Sale. Rainforest Flora Nursery, 19121 Hawthorne Blvd, Torrance CA. Sat. noon-4:30, Sun 10:00am to 4:30pm. Plant sales & judged BSI Show. Contact Bryan Chan (818) 366-1858, bcbbromel@aol.com

August 29-30, 2008. Florida Council of Bromeliad Societies 2008 Extravaganza, hosted by the Bromeliad Guild of Tampa Bay. Contact Tom Wolfe (813) 961-1475 or bromeliadsociety@juno.com

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

18th World Bromeliad Conference • Cairns 2008

Check it out now at www.bromeliadsdownunder.com

registration forms online, or by mail from BSI Membership Secretary - Dan Kinnard, 6901 Kellyn Ln, Vista CA 92084-1243, USA.

The Bromeliad Society International

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.

OFFICERS

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(To e-mail Directors, write "firstname@bsi.org," Not all Directors have e-mail)
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STANDING COMMITTEES

Affiliated Shows.....Carolyn Schoenau, P.O. Box 12981, Gainesville, FL 32604-0981. shows@bsi.org
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Research Grant.....Gregory K. Brown, University of Wyoming, P.O. Box 3165, Laramie, WY 82071-3165. grants@bsi.org
Seed Bank.....Harvey C. Beltz, 6327 South Inwood Rd., Shreveport, LA 71119-7260
Media Library.....Keith Smith, 1330 Millerton Rd., Auburn CA 95603-1243, USA. slides@bsi.org
Web Site.....Ken Marks, 22690 Lemon Tree Ln., Boca Raton, FL 33428-5514, USA, webmaster@bsi.org
World Headquarters.....Tom Wolfe, 5211 Lake Le Claire Rd., Lutz, FL 33549-4833, USA. bromeliadsociety@juno.com

HONORARY TRUSTEES

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