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Cover photographs. Front: Inflorescence of *Ursulaea macvaughii,* flowered at Tropic Beauty, home of Dr. & Mrs. Ulrich Baensch in Nassau, Bahamas. Back: *Tillandsia xiphioides* var. *tafiensis.* The description of this variety is by Derek Butcher, the photograph by Len Colgan.

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Harry E. Luther Elected Honorary Trustee

Figure 1. Harry E. Luther

We are greatly pleased to announce that Harry E. Luther was elected an honorary trustee by the the Board of Directors at the 15th of June 1994 meeting. Mr. Luther's services as bromeliad taxonomist, author and speaker, as well as conservator unquestionably deserve our recognition.

Mr. Luther has served The Bromeliad Society with distinction as director of the Mulford B. Foster Bromeliad Identification Center at the Marie Selby Botanical Gardens in Sarasota, Florida, since the center was established in 1979. His work there involving both the scientific community and amateur collectors has brought great credit not only to himself and to the center but to our society.

As director, he has created a research collection of living bromeliads of every genus and as many species as can be grown successfully in the environment of the gardens. In addition, he has diligently added many specimens and photographs to the Selby Herbarium.

His research has included successful field trips to Brazil, Costa Rica, Ecuador, Honduras, Mexico, and Panama to search for new material, to re-collect lost evidence,and to establish range extensions. He has published his research findings frequently both individually and in collaboration with other specialists. His ability as an author has made his taxonomic reports of both scientific and popular nature available and interesting to a wide audience. In support of his research he has created a library of written and photographic materials including several hundreds of photographic slides.

Since the founding of the Identification Center, Mr. Luther has promoted an intern program at the center and has served as advisor to students of botany, encouraging them to specialize in bromeliad culture and research.

Although he has made frequent contributions to the JOURNAL OF THE BROMELIAD SOCIETY, his ALPHABETICAL LIST OF BINOMIALS is probably his best known endeavor. That list, now in its fourth edition, has been widely

accepted as a quick reference for spelling bromeliad binomials. Mr. Luther has generously contributed the proceeds of the sales of his list to the society.

In 1992, Mr. Luther, in collaboration with Ms. Pamela Koide, provided essential information to the United States representative to CITES. Their timely work in gathering that information helped to provide an outcome of the Kyoto meeting that otherwise would have been unsatisfactory.

He has served for many years as a member of the JOURNAL Editorial Advisory Board and as a member of the Research Grant Committee. In addition, Mr. Luther has been much sought after to address local, national, and international botanical organizations to explain and illustrate various elements of the bromeliad family.

All of these activities, which may be summarized as his taxonomic research, his teaching, his especially lucid writing, his informative and entertaining lectures, and his stimulating personal discussions reflect to the credit of The Bromeliad Society.—TUL

Congratulations, Lyman

Dr. Lyman Bradford Smith deserves congratulations on his 90th birthday as much for a long life as for his many scientific productions. His list of publications is long and marvelous to behold. Foremost is his three-volume monograph on the bromeliad family published in the Flora Neotropica series in 1974, 1977, and 1979. This great work has been the source of most of my beginnings with bromeliad studies. I have found the information in this monograph essential as a starting point for my studies. At times it provided more information than I needed.

Lyman's ability to recognize immediately a species, or at least to point to a group of related species has been phenomenal. It was an invaluable opportunity for me to work with him while he compiled Part 3 of the monograph and to be his partner with many publications of new species. While working closely with Lyman over a period of twenty eyars, I learned more than I ever expected to learn about bromeliads. There is still much for us to learn about bromeliads and too few scientists with Lyman's ability.

Lyman has received many honors and awards for the work of his tremendously productive life. Our gift to him on his 90th birthday is to remember his prodigious efforts and great contributions to the study and understanding of bromeliads.

Bob Read
Quest End, Naples, Florida

Introducing: *Tillandsia plagiotropica*

Harry E. Luther

Tillandsia plagiotropica Rohweder has received little attention from the bromeliad hobbyist and is botanically poorly known and infrequently collected. This small species was first discovered in El Salvador in 1950 and described by Otto Rohweder (1953). It has since been found in Guatemala. It is a minor export item of the tillandsia nurseries of that country.

Flowering plants are compact, 8 to 15 cm in diameter; the rather stiff and somewhat succulent leaves are densely appressed lepidote, silvered gray to white and up to 1 cm in width. The capitate inflorescence is low in the rosette and is depauperately compound or simple. The bracts (and occasionally the innermost leaves) are tan to creamy yellow. The corolla is tubular, pure white and shorter than the stamens and style.

Tillandsia plagiotropica is an epiphyte in cloud forest at 1300–1700 m elevation. According to Rohweder (1956), it occurs in El Salvador with *T. juncea, fasciculata, rodrigueziana* and an unidentified *Billbergia* species. In Florida, it exhibits distress at high temperatures and is considered difficult to maintain in cultivation.

Vern Sawyer for Selby Gardens

Figure 2.
A flowering *Tillandsia plagiotropica* from Guatemala.

[Continued on page 212]

Roberto Burle Marx Dies at 84; Brazilian Landscape Designer

James Brooke

T.U. Lineham

Figure 3.
Roberto Burle Marx, photographed at his estate near Guarantiba, 21 April 1990.

RIO DE JANIERO – Roberto Burle Marx, whose mark on Brazil's landscape ranged from the undulating mosaic sidewalks of Copacabana Beach to the hanging gardens in the new capital of Brasilia, died on Saturday [4 June 1994]. He was 84 and lived in his lush, botanical retreat, a former coffee farm, 35 miles from here.

He died of congestive heart failure, friends said.

During a 60-year career, Brazil's most prominent landscape artist brought his nation's rich flora out from Europe's shadow and became a tireless champion of Brazil's orchids, palms, water lilies and bromeliads.

His nearly 3,000 landscape projects in 20 nations ranged from the gardens of the Organization of American States headquarters in Washington to a redesign of Biscayne Boulevard in Miami, from the gardens of the Unesco headquarters in Paris to a tropical garden under glass at Longwood Gardens in Pennsylvania.

Designed a Rio Park

In Brazil, he was best known for Rio's postcard Flamengo Park—300 acres of lawns, playing fields, artificial beach and automobile parkway that connect the city's financial center with beachfront residential neighborhoods.

"Unlike any other art form, a garden is designed for the future, and for future generations," Mr. Burle Marx said in an interview prior to his 1991 show at the Museum of Modern Art in New York. The exhibit, "Roberto Burle Marx: The Unnatural Art of the Garden," was the museum's first devoted to a landscape architect.

Born in São Paulo in 1909 to a Brazilian mother and a German father, Mr. Burle Marx only discovered the power and variety of Brazilian plants when he

traveled to Berlin in 1928 to study at the Dahlem Botanical Gardens. Moving to Rio on his return to Brazil, he was experimenting in his backyard with local flora when he caught the eye of a neighbor, Lucio Costa.

Decades later, the two worked together on the daring design for Brasilia, the new capital in the central high plains. Mr. Costa designed Le Corbusier-style buildings and Mr. Burle Marx designed landscapes, which ranged from monumental parks to the hanging gardens of the Ministry of Foreign Affairs.

"He was the creator of Brazilian gardens," Mr. Costa said on Saturday. "He was an innovator because he associated abstract art with landscaping. Before him, our gardens were planned following French and English models."

A self-taught botanist, this bear of a man with an unruly shock of white hair came to have 13 plant species named after him. Mr. Burle Marx also became a pioneering critic of Brazil's treatment of its historic and biological heritage.

Although he escaped a kidnap attempt last year, apparently in an effort to get ransom, he criticized Rio's steady retreat behind walls, saying that a move last year to enclose city parks behind cast iron fences amounted to "Rio in a cage." On one occasion, he stalked out of a Brazilian Embassy in Greece when he encountered, in a waiting room, a plastic plant.

Raising alarms about Amazon destruction decades before it became fashionable to do so, Mr. Burle Marx warned in 1971: "I fear that by the time people become enlightened, there won't be any more forests in this country."

Sr. Burle Marx was for many years an honorary trustee of our society. Many members will remember that he was the banquet speaker and honored guest at the 1992 World Bromeliad Conference held in Tampa, Florida.

Evidence of his deep interest in bromeliads is to be found in his extensive use of bromeliads in his famous landscape designs for public parks and gardens, and notably in his own garden. His collection of specimen plants is gathered in the conservatory at his home named for his friend, the well-known botanical artist, Margaret Mee.

Three bromeliad species have been named in his honor: *Aechmea burle-marxii, Orthophytum burle-marxii,* and *Vriesea burle-marxii.*—TUL

The Belgians and the Bromeliads

G. Samyn & F. Thomas[1]

Part I The 19th Century: Belgium Becomes an Horticultural Nation

1. Plant Collections and the Beginning of Horticulture

When Europe started exploring the world in the early 16th century, innumerable plants were brought on the ships coming back from America, Africa and the Far East. Attention was first directed towards the medicinal and nutritive characters of those plants, for the most part unknown in Europe. Even in that century some famous botanists were present in the provinces that today form the Belgian State: Rember Dodoens, Carolus Clusius and Matthias Lobelius. However, when botanists started studying a more precise scientific classification of the plant kingdom, the importation of plants increased systematically in view of the better knowledge and comparison of fundamental taxonomic characters.

At the end of the 18th century, real scientific voyages were undertaken to explore nature in the still unknown continents, and explorers such as Cook were accompanied by botanists who were engaged to describe and sample exotic plants. Von Humboldt's expedition to South America from 1799 to 1804 serves as an example.

Slowly, another evolution could be observed. While plants had been collected for their medicinal qualities since the Middle Ages and grown in cloister gardens or medical schools, at this time a society of rich plant lovers appeared who developed famous collections in their private homes. They maintained close mutual contacts to keep informed about the most recent discoveries.

The construction of greenhouses allowed the plants to survive the cold winters of these northern regions. At the time, plant lovers were mostly aristocrats or rich merchants with their own staffs of gardeners and workmen. But a broader public was also becoming interested in growing ornamentals. This social class lacked the financial means to support staffs of gardeners and was dependent on commercial purchase. In Belgium and especially in the region around Ghent, a similar situation prevailed and the first flower market was held on a Sunday in June 1772. Later, plant auctions became regular events.

Although private collections were spreading over all of Europe, for a long time England was an inevitable link for importing novelties. It is remarkable that

[1] Research Station for Ornamental Plant Growing, Centre of Agricultural Research/CLO-Gent, Caritasstraat 21, B-9090, Melle, Belgium.

in a very short period of time so many export-oriented horticultural businesses could develop, which today still maintain a high level of quality and technical performance.

2. The First Horticulturists: Explorers and Gardeners

During the continental blockade imposed by the French emperor, Napoleon, the importation of exotic plants was practically nonexistent. Only after 1815 did it again become possible to import plants. From that moment on, Belgian gardeners turned out to be real businessmen with projects and horizons that were very ambitious for the times. Several events contributed to this success:

- The founding of a botanic garden in Ghent: the *Hortus Gandavensis*, whose dynamic management made it a centre of botanical interest.

- The founding of the Royal Society for Agriculture and Botany of Ghent (1808). It is surely impossible to evaluate the influence of this society on the development of horticulture in Belgium. For nearly two centuries it supported and stimulated horticulture with its many initiatives. Today, its influence in the horticultural community is manifest. Every five years the society organizes the famous *Ghent Floralies,* which even today unite the best of the best in horticulture.

- The founding of many smaller or more specialized botanical societies; forty such societies were already in existence in 1876.

- The successful publication of various horticultural reviews, through which information on the most recent discoveries in horticulture was quickly disseminated: Flore des Serres; Revue de l'Horticulture Belge; Le Jardin Fleuriste.

During the early years, it was still necessary to import plants from England, a real treasure house because of its colonies, but from 1830 to 1840, voyages of exploration were undertaken by the Belgians themselves. South America especially was their favorite terrain.

One of the most important names of the period was surely that of Louis van Houtte,[2] director of the Botanical Garden of Brussels, who visited Brazil. He started one of the most important nurseries of his time near Ghent; within the century it would become world famous. One of his achievements was the founding of a structured horticultural curriculum, necessary for a steady supply of experienced gardeners. Jean Linden was another explorer, and later nurseryman, who was also active in Brazil. Horticulturists who could not go to the tropics themselves recruited so-called "plant hunters," who spent their lives traveling around these regions, living in the most uncomfortable conditions.

[2] *See* Journal *1992, pp. 103–108 for further information.*

The explorer von Siebold came to Ghent and organized an important plant auction in 1850. At this time, plant exportation to England began to reveal the first-rate place that Ghent had become.

3. The Entry of the Bromeliads

Belgian horticulture had a broad assortment of plants from the very beginning. All plant families and geographical territories were explored in search of splendid and unusual exotic specimens. It was a time in which interest was not yet directed towards the production of the small, less expensive plants that the public demands today. With rare know-how, specimens were imported, grown and exported again throughout the world. But gradually most growers became specialized in one typical culture—camellias (later replaced by azaleas), palms, orchids, and a more or less specific group of tropical hothouse plants.

The first important bromeliad to be introduced was *Aechmea fasciata* (1836). That plant flowered in 1846 in van Houtte's nursery. It is remarkable that this plant is still today one of the most commonly grown bromeliads in Europe. Cultural selection for over a century produced different variations, such as the totally white-gray type, and the green type with the clear, transverse line pattern on the leaves. But today's plants grow quite a bit faster than did their ancestors of 100 years ago.

Today, it is possible to follow the evolution of bromeliads introduced into Europe because of the many horticultural reviews that have been published since 1840. The beautiful pictures and precise representations and descriptions make them true historical documents. They show, for example, that while *Aechmea fasciata* was being developed, *A. fulgens* was introduced, but the commercial importance of the latter has now gone.

Nomenclature was, and still is, a problem. A bromeliad seldom retains the name that was first given to it. The table presented on the next page lists some bromeliads that were imported to Belgium from Brazil for horticultural use more than 100 years ago. Most have no real value today, but have been used in breeding for many years. To keep the list short, we only mention the period up to 1860. From 1860 to 1890, attempts to introduce bromeliads into horticulture were especially intense.

Plant collecting in Brazil has been going on for a long time and continues even today. Worth mentioning are Wawra's expeditions in 1872 and 1879 during which he escorted two German members of the Coburg family (to which the Belgian monarchs belong).[3] The bromeliads *Vriesea philippo-coburgii, Nidularium ferdinando-coburgii* and *Quesnelia augusto-coburgii,* among others,

[3] *See* JOURNAL, *1993, pp. 163–170, 165–174, 180–181, 204–210 for information about the trip in 1879.*

were named for members of this family. These plants are still present in our collections, not because of their horticultural value but for their historic importance. What a pity that in Europe it is so difficult for *V. philippo-coburgii* to reach the size it does in Brazil.

Origin and date of introduction of the first cultured bromeliads in Belgium.

Name of introduction	Actual name	Date of import*	Origin
Billbergia rhodocyanea	*Aechmea fasciata*	1837	Rio de Janeiro
Billbergia tinctoria	*Aechmea bromeliifolia*	1846	Brazil
Aechmea fulgens	*Aechmea fulgens*	1844	Brazil
Billbergia marmorata	*Quesnelia marmorata*	1853	Brazil
Nidularium innocentii	*Nidularium innocentii*	1855	Brazil
Nidularium bivittatum	*Cryptanthus bivittatus* var. *bivittatus*	1859	Porto Seguro
Guzmania tricolor	*Guzmania monostachia*	1845	Brazil (?)
Anoplophytum gardneri	*Tillandsia gardneri*	1842	Brazil (?)
Tillandsia laurifolia	*Tillandsia laurifolia*	1845	Morro Queimado (Not found. Ed.)
Anoplophytum geminiflorum	*Tillandsia geminiflora*	1842	Santa Catarina
Tillandsia ionantha	*Tillandsia ionantha*	1854	Brazil (?)
Tillandsia fenestralis	*Vriesea fenestralis*	1852	Rio de Janeiro
Vriesea psittacina	*Vriesea psittacina*	1828	Rio de Janeiro
Tillandsia jonghei	*Vriesea jonghei*	1856	Minas Gerais

* Dates are not necessarily related to the first botanical description but to the first probable presentation in a horticultural review.

Brazil was not only a region where bromeliads were collected. Interested people living in the country also played a fundamental role in the introduction of many new species. Numerous plants were sent to Belgium from the gardens of Petrópolis, and names such as Glaziou and Binot are often associated with new bromeliad introductions.

4. Bromeliads: A True Belgian Specialty

Various bromeliads, especially *Tillandsia,* were already imported as rare specimens in Europe at the end of the 18th century; others were commercially traded in the early 19th century by nurserymen from Ghent. But bromeliad cultivation would never have become so well-developed and associated to such a degree with the Belgians if one man, Eduard Morren, had not become so enthusiastic about this plant family. The son of botanist Charles Morren and curator of the Liège Botanic Garden, he studied and described an infinite number of bromeliads during his career. This botanic garden possessed the most important bromeliad collection of

its time. In the same town, the Jacob McKoy nursery also helped to promote bromeliads. Morren also obtained many of the first hybrids, especially of *Vriesea,* whose names clearly indicate their Belgian origin: *V.* 'Belgica', *V.* 'Wallonia', *V.* × morreniana, *V.* 'Baron de Selys' and *V.* 'Rubens'.

It seems to have been one of Morren's wishes to explore the Brazilian jungle himself. He did not have the opportunity, but another member of the group of bromeliad enthusiasts, Edouard François André, the indefatigable French explorer, had close contact with Morren. The exploration of South America by this dynamic personality provided hundreds of newly discovered bromeliads to the public. Morren and his botanic garden, together with the firm of Jacob McKoy, are not related geographically or economically to the horticultural centre of Ghent, but they were surely a source of inspiration for the introduction of new bromeliad species and cultivars. Part of Morren's herbarium and documents for his monograph on bromeliads are now conserved in the collections of Kew Gardens.

In a small country such as Belgium, 200 km is quite a distance. The foundation for today's Belgian bromeliad culture was laid down here with such well-known names as Reginald DeRoose and DeMeyer-De Rouck. The Research Station of Ornamental Plant Growing continues this Belgian tradition of bromeliad research, not so much in relation to botanical studies, as in the professional growing and breeding of new specimens. But that is a subject for my next article.

Reprinted from Bromélia, *the quarterly journal of the Sociedade Brasileira de Bromélias, March 1994, by permission of the authors and the editor. The names of species, hybrids, and cultivars have been changed by the editor to conform with the spelling given in the Luther and Sieff* Alphabetical List *and the Beadle* Preliminary Listing of Cultivar and Grex Names of the Bromeliaceae.

Donation to the Color Fund

The members of the Bromeliad Society of Central Florida have recently contributed to the Color Fund. We thank President Geoff Johnson and the members for their generosity and thoughtfulness.—TUL

Ursulaea; A New Genus of Mexican Bromeliads

Robert W. Read[1] and H. Ulrich Baensch[2]

There can be no question that *Aechmea,* as treated by Smith & Downs (1979), is not a natural genus. As demonstrated in erecting the genus *Lymania* from elements among the species of *Aechmea* subgenus *Lamprococcus* and the genus *Araeococcus* (Read 1984), groups of species have been placed together traditionally because they exhibit characters of convenience such as petal appendages, mucronate sepals, simple, branched, or strobiloid inflorescences, etc. that have not proven to be of taxonomic significance. The question then is how to realign and group species in a more natural arrangement.

The authors of recent papers (Smith & Kress 1989, 1990) have "erected and restored" seven subgenera to full generic status and created 140 new combinations because it seemed "not only logical but also convenient" to do so. No reference was made to the most recently published key by Smith (1988) wherein the subgenera *Aechmea* and *Pothuava* are not even distinguishable. The wholesale making of new combinations for the species in each newly erected "genus" without careful reevaluation of the species previously treated in each subgenus goes against all principles of careful taxonomy, i.e. "avoiding and rejecting the use of names which may...throw science into confusion" and "...the avoidance of the useless creation of names." (I.C.B.N. 1983, Preamble *1.*)

The "subgenus" *Podaechmea* is a case in point. Not only did Smith & Kress (1989) continue to include the anomalous species *Aechmea macvaughii* in their new genus *Podoaechmea*, they neglected to mention even the closely allied species *A. tuitensis* which was published since the monograph. The Smith and Downs key (1979: 1494) to genera was clearly artifical in which only one of the species in our new genus would key to the genus *Aechmea*. *A. tuitensis* would not key to *Aechmea* lacking or greatly exceeding the characters stated. Had they examined either species more closely they would have found (on the basis of the sepals) that neither species would fit in the genus *Aechmea* in the broad sense, especially in light of the most recent definition by Smith (1988). A major division in Smith's latest keys to genera distinguishes *Aechmea* by its asymmetric sepals. Both *A. macvaughii* and *A. tuitensis* exhibit sepals that are "symmetric or nearly so," and both species of *Ursulaea* would key to an area between *Billbergia* and *Neoglaziovia*. Therefore, it becomes necessary to erect a new

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[2] Ph.D., P.O. Box N1105, Tropic Beauty, Nassau, Bahamas.

genus to accommodate two species that not only do not fit in the subgenus *Podaechmea,* but do not belong in the genus *Aechmea.*

***Ursulaea* R.W. Read & H.U. Baensch, Gen. Nov.**

Plantae acaules. Folia rosulata, laminis armatis. Scapus erectus, elongatus. Inflorescentia simplicissima seu ramosa, arcuata seu erecta, laxa, flores perfecti, pedicellati, polystichi, bracteae florigerae florum bases haud cingentes, sepala libera, symmetrica, petala purpurata, ad extrematatem recurvata, filamenta libera eis petalis oppositis ad petala adnatis; placentae subapicales, ovulis caudatis.

Plants acaulescent, small or large. **Leaves** rosulate, ligulate, erect and forming a water-impounding tank, or triangular, succulent and spreading with little water-impounding capability; margins of blades serrate. **Scape** elongate, erect to arcuate, densely covered by imbricate, serrate **scape bracts** that greatly exceed the internodes. **Inflorescence** simple or branched, erect or pendulous, laxly flowered, with all axes densely and coarsely white-lepidote. **Flowers** perfect, polystichous, pedicellate; pedicels, ovary and sepals densely white-lepidote; **floral bracts** narrow, not encircling the base of the flower. **Sepals** free, 15–30 mm long, triangular, straight or down-curved, symmetric or very nearly so, strongly mucronate. **Petals** 4–5 cm long, deep blackish purple, the apical portion recoiled and exposing the stamens and stigmas, bearing two fimbriate appendages at the base. Alternate **stamen filaments** adnate to lower portion of petal. **Epigynous tube** shallow. **Ovary** inferior, much enlarged at anthesis; **placentae** subapical; **ovules** caudate. **Fruit** orange or yellow to purple.

TYPE: *Ursulaea macvaughii* (L.B. Smith) R.W. Read & H.U. Baensch.

ETYMOLOGY. This genus honors Ursula Baensch, superb horticulturist and coauthor of the forthcoming book BLOOMING BROMELIADS.

Key to the Species of Ursulaea

1. Inflorescence pendulous, compound; leaves ligulate, stiff, erect to about 120 cm long by about 16 cm wide, forming a water-impounding tank; floral bracts ca. 1 cm long; sepals serrulate ..... *U. macvaughii.*

1. Inflorescence erect, simple; leaves triangular, succulent, spreading, 28-56 cm long by 2–7 cm wide, not usually impounding free water; floral bracts ca. 4.5 cm long; sepals entire ..... *U. tuitensis*

Ursulaea macvaughii* (L.B. Smith) R.W. Read & H.U. Baensch, *comb. nov. et descr. emend. Cover photograph and figures 4 and 5.

Podaechmea macvaughii (L.B. Smith) L.B. Smith & W.J. Kress, PHYTOLOGIA 69 (1):70. 1989; PHYTOLOGIA 69 (4):271. 1990 (omitted page and year of basionym).

Aechmea macvaughii L.B. Smith. PHYTOLOGIA 10:481, pl. 1, figs. 8, 9. 1964 (as "mcvaughii"). [Cover photograph J. BROM. SOC. 37(2). 1987. Upside down.]

Plant nearly 1 m high. **Leaves** to 1 m long, in a large erect tank ca. 100 cm high, ca. 8.3 cm in diameter at the base; **sheath** entire, not abruptly larger or distinct from the blade, abaxially and adaxially same as blade, tightly clasping, ca. 30 cm long, 20 cm wide; blades ligulate, uniform, ca. 85 cm long, 9 (11–16) cm wide, light apple green, broadly rounded, subacute with a stout, pungent mucro 6–9 mm long, waxy glaucous and glabrous adaxially, covered abaxially with white subappressed scales; margins strongly and regularly pale green serrate with flat, curved teeth 3–4 mm long. **Scape** arcuate, ca. 70 cm long, ca. 1–1.7 cm thick at apex, covered with persistent, spreading, coarse, brilliantly white scales; **scape bracts** erect, pale rose, serrate, densely imbricate, greatly exceeding internodes, lanceolate, involute-acuminate at apex, ca. 8.5 cm wide, 23 (25–27) cm long, subchartaceous, pungent, glabrous adaxially, darker at margins, covered with appressed white scales abaxially, becoming like the lowermost primary bracts pale pink chartaceous and pungent, drying corrugated. **Inflorescence** pendulous; **rachis** ca. 48–100 cm long, ca. 1.5 cm thick at base, to 6 mm thick toward apex, bipinnate toward base, racemose toward apex, its axes, ovaries, and sepals coarsely white-lepidote like the scape; **primary bracts** serrate like the upper scape bracts, much exceeding the 5-cm-long laxly few-flowered branches, 16–25.5 cm long, 2.6–6.5 cm wide, large ones only on the first 5 branches, thereafter abruptly to 2–3 cm and narrowly triangular; branches ca. 14 in number, 3–7 flowers each; 5 lowermost branches with large bracts abruptly reduced apically to slender filiform bracts ca. 2 mm wide and exceeding only the sterile portion of branch base. **Floral bracts** linear, attenuate, about 10 mm long, similar to uppermost primary bracts, equaling to slightly shorter than the pedicels but mostly shorter than the pedicels; **pedicels** straight, terete, to 15–18 mm long, 1 mm in diameter, appear to be ca. 5 mm in diameter because of the densely fuzzy scales; **flowers** spreading, in line with the pedicels. **Sepals** free or nearly so, down-curved, narrowly triangular, 22 (25–30) mm long, including the 6-mm-long mucro, more nearly symmetric, thickish centrally, hyaline on margins, one margin very slightly wider than other, serrulate toward apex, slender, mucronate, ecarinate. **Petals** ca. 5 cm long, ca. 7.6 mm wide, to only 5.7 mm wide at base, rounded acute apically and with 2 laciniate appendages at the very base. **Stamen** filaments 4.5 cm long, alternately adnate to the petals 1.2 cm high from the base;

Figure 4.
Portion of an inflorescence of *Ursulaea macvaughii.*

Photos by H.U. Baensch

Figure 5.
Mature fruit of
Ursulaea macvaughii.

anthers yellow, ca. 10.2 mm long; **style** 4 cm long, **stigmas** 3, ca. 4 mm long; **stamens** and **pistil** exserted; **ovary** globose, 1.4 cm high and 1.1 cm wide, enlarged in fruit to 15 mm diameter; **epigynous tube** shallow, ca. 1–1.5 mm deep; **placentae** elongate, fertile portion 4 mm long, lower 4 mm sterile; **ovules** caudate; **fruit** orange (figure 5); **seed** suboblong, 3 mm long, black, finely reticulate.

Ursulaea macvaughii has been collected at 500-600 m in mixed tropical forest, almost always as an epiphyte. Abundant on limestone and trees in high, dense forest dominated by *Brosimum*.

TYPE: *McVaugh & Koelz 1491* (holotype, MICH; isotype, US), steep mountainside, 8 miles southwest of Pihuamo, 500–600 m alt., Jalisco, Mexico, 6 Dec. 1959. Live material studied at Tropic Beauty, Nassau, Bahamas, Mar. 1993.

Ursulaea tuitensis* (P. Magaña & E.J. Lott) R.W. Read & H.U. Baensch, *comb. nov. et descr. emend. [omitted completely from Smith & Kress (1989, 1990)]. Figure 6.

Aechmea tuitensis P. Magaña & E.J. Lott, PHYTOLOGIA 59:221-223., 1986; J. BROM. SOC. 37(2):74–75. 1987; 34(3):104. 1984; 30(2): back cover (as *A. macvaughii).* 1980.

Plants small, rhizomatous, 30–60 cm high at anthesis. **Leaves** 15–20, the sheaths ovate, 8–11 cm long, 4–7 cm wide, green to red, densely white-lepidote, fleshy, venation conspicuous, margin entire; **leaf blades** triangular, 20–45 cm long, 2–4 cm wide, apex attenuate, terminating in a spine 5–7 mm long, densely lepidote, green to red or purple, fleshy, serrate with teeth 3–4 mm long. ***Scape*** erect, 20–37 cm long, 4–7 mm wide, densely lepidote, green; **scape bracts** red, erect, the lower ones foliaceous, serrate, 15–17 cm long, 1–3 cm wide, the upper elliptic, acuminate, 7–15 cm long, 1–2 cm wide, chartaceous, margins serrate, apex terminating in a spine 2–4 cm long, densely lepidote, pink. **Inflorescence** erect, simple, racemose, 11–18 cm long, 5–12 cm wide, densely white lepidote-lanate throughout, the trichomes branched, the rachis terminating in a coma of linear bracts. **Floral bracts** linear, 2.5–4 cm long, 2–3 cm wide, reflexed mucro 2–4 mm long, venation conspicuous, pink. **Flowers** spreading to ascending, the pedicels 2–5 mm long, 2 mm wide. **Sepals** free, lanceolate, more or less symmetrical, 15–27 mm long, 4–8 mm wide, mucronate, coriaceous, with conspicuous venation, densely lepidote, dark green, the apex purple. **Petals** oblong-spathulate, apex recurved, obtuse, 4–4.5 cm long, 3–6 mm wide, blackish purple, with 2 fimbriate scales 4 mm long at the base. **Stamens** and **pistil** exserted; **filaments** white, 3 cm long, the second series adnate to the base of the petals; **anthers** yellow, 4-8 mm long; **epigynous tube** shallow; **ovary** globose 1 cm diam., densely lepidote, **style** 4.5 cm long, **stigma** spiral. **Fruits** globose berries 1 cm in diam. (immature), densely lepidote, green to purple.

Figure 6.
Ursulaea tuitensis grown by Ulrich Baensch at Tropic Beauty in Nassau, Bahamas.

Ursulaea tuitensis grows profusely on boulders at elevations of about 1050 m in oak-pine forest, growing on rocks. It flowers March–May. The local name is "pinos."

TYPE: Mexico. Jalisco. Municipio Talpa de Allende, 20 km to the E. of El Tuito, on the "terraceria a la Mina del Cual–San Sebastian," alt. ca. 1050 m, 10 Mar. 1985 (fl), P. Magaña et al. 192 (holotype, MEXU; isotypes, M0, US).

Additional collections: Mexico. Jalisco. Mpio. Talpa de Allende, same loc., 30 May 1985 (fl & fr), P. Magaña et al. 242 ENCB, F, MEXU, NY, SEL). Live material studied at Quest End, Naples, Fla., 1988.

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HORTICULTURAL NOTES, by H. Ulrich Baensch

Ursulaea macvaughii. Five weeks after the exciting appearance of the bud, the first flowers opened on Christmas Day in 1992. Flowering went on for about four more weeks, a few flowers, mostly 2–4, opening almost every day. The flowers appeared irregularly throughout the inflorescence. As a result there were numerous opportunities for attempts at hybridizing. Seed resulted from crossings with *Aechmea chantinii, A fendleri, A. ramosa,* and *A. tessmanii* as pistil plants; *Androlepis skinneri* and some *Billbergia* species as pollen plants. The most vigorous seedlings resulted from crosses with *Billbergia*. They are much stronger than the seedlings resulting from self-pollination.

Ursulaea macvaughii dominates in nearly all other crosses mentioned. The young rosettes of the hybrids are succulent and assume the shape of straight *U. macvaughii.*

Another form has very inconspicuous scales on the upper portion of the panicle. The dark olive green leaves are shiny because of the lack of trichomes on the upper side. The leaves are covered with small gray scales beneath.

Ursulaea tuitensis. After years of waiting, an inflorescence finally developed. This succulent plant is really difficult to cultivate under local conditions in Nassau. Maybe it requires cooler nights. Apparently there are different varieties. Compare the wide open rosette of the photo by Thelma O'Reilly (J. Brom. Soc. 37(2):74, fig. 9. 1987) with my plant (figure 6), also grown in full sun.

My wife Ursula and I suspected that these plants were not aechmeas and asked our friend, Dr. Robert W. Read, who confirmed that they represent a distinct genus. The new genus, with only two species, is an interesting one. Perhaps it is an interesting link to other genera representing a special crossing partner with good prospects. We respect Bob's precise taxonomic work and appreciate his suggestion for naming it *Ursulaea*.

ACKNOWLEDGMENTS: The authors thank the reviewers for their valuable suggestions. They are especially grateful to Dr. William Dress, professor emeritus, L.H. Bailey Hortorium, Cornell University, for correcting the Latin diagnoses.

Introducing: *Tillandsia plagiotropica* [Continued from page 197]

Tillandsia plagiotropica is closely related to the red-bracted, blue-flowered *T. kammii* Rauh from Honduras. Besides the very different inflorescence coloration, it may be distinguished from the Honduran (and CITES-regulated) species by broader, usually shorter leaves that are stiffer and brittle and more white in color.

M.B. Foster Bromeliad Identification Center
Marie Selby Botanical Gardens

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We are pleased to welcome two new affiliates to our society:

Florida East Coast Bromeliad Society, Garden Center, Daytona Beach, FL., founded 25 April 1993. The president of this new society is Barbara Willey, 1407 Section Line Tr., Deltona, FL 32725; telephone 407-574-1842.

Sociedade Brasileira de Bromélias, Rio de Janeiro, founded 14 June 1993. The president of this new society is Luiz Felipe Nevares de Carvalho, Rua Povina, Cavalcanti, 153, apto. 1201, 22610-080, Rio de Janeiro, RJ, Brazil; telephone: 322.2419.6372, FAX: 260.2628.

While noting the establishment and affiliation of these groups, we should mention that the Sociedade Brasileira has already published the first issue of its review, BROMÉLIA, edited by Elton Leme. This well-illustrated (some color), 39-page quarterly contains material of both general and scientific interest. It is published in both Portuguese and English. The review is available through membership in the society. It is the kind of excellent work that we have come to expect of our friend Sr. Leme.—TUL

CORRECTION:

Vol. 44, no. 3, page 130. Credit for the photograph should have been given to Renate Ehlers.

Don't Confuse Sphagnum Moss with Peat Moss

Gerry Hood[1]

You may have read about a fungal disease called *Cutaneous Sporotrichosis*, a chronic infection identified by skin lesions. The fungus which causes this disease has been found in several kinds of organic material and, because in extremely rare cases this disease can cause death, gardeners are rightfully concerned about protecting themselves from contracting it. Unfortunately, however, some of the information circulating about how gardeners can contract this disease has been inaccurate. It confuses two separate products; one of which is known to carry the fungus and one of which does not.

One of the materials known to carry the sporotrichosis fungus is sphagnum moss. Most frequently used by the floral industry to line wire baskets, this product frequently is being confused with sphagnum peat moss, a soil conditioner known for its ability to bind sandy soils, loosen clay soils and retain water. The difference is an important one. While there have been cases of sporotrichosis resulting from handling sphagnum moss, I'm aware of no cases as a result of handling sphagnum peat moss. Sphagnum moss and sphagnum peat moss are not the same product, as many avid gardeners know.

Sphagnum moss is the living moss that grows on top of a sphagnum bog. The fungus *sporotrichum schenckii* is known to live in this growing moss.

Sphagnum peat moss is the dead material that accumulates as new live material grows on top and exerts pressure on the peat moss below. The fungus is not known to live in the levels of a sphagnum bog where peat forms. Harvesters of horticultural peat moss remove the top few inches of the live sphagnum moss and only harvest the peat from the lower layer.

"Living" sphagnum moss is used in the floral industry to make wreaths and to line hanging baskets. Workers in that industry have been warned to protect themselves with gloves and heavy clothing to avoid puncture wounds or scrapes. Gardeners wishing to use sphagnum moss to create their own baskets or for other uses should simply follow the same advice: Wear gloves and long sleeves to prevent coming into contact with the dried moss. No similar warning appears on Material Safety Data Sheets (MSDS) for handling sphagnum peat moss...

Peat moss is not only effective, it's organic and safe to use.

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[1] President, Canadian Sphagnum Peat Moss Association, 8400 Normandale Lake Blvd., Suite 500, Bloomington, MN 55437.

Cultivar/Grex Registrations for 1991–June 1994

Compiled by Registrar Ellen Baskerville

Any changes, additions, or corrections should be addressed to the registrar at 1819 Mid Ocean Circle, Sarasota, FL 34239.

CULTIVAR/GREX REGISTRATIONS FOR 1991-JUNE 1994

GENUS NAME	CULT/GREX	HYBRIDIZER	SEED PARENT	POLLEN PARENT
Aechmea				
AE 'Black on Black' 03-29-94	CU	J. Anderson	*victoriana* v. *discolor* X *recurvata* 'Red Clone'	
AE Caloosa 02-09-92	GR	Sam Smith	(*dichlamydea* v. *trinitensis* x *fendleri*) X *tessmannii*	
AE 'Forest Fire' 09-01-93	CU	Wally Berg*	*blanchetiana* X *eurycorymbus* Cultivar of natural hybrid	
AE 'Hazel Quilhot' 10-15-91	CU	H. Quilhot	Cultivar of *AE chantinii* with distinct coloration	
AE Jimmie Knight 02-09-92	GR	Sam Smith	*tessmannii* x *mariae-reginae*	
AE Julie Sewell 05-16-94	GR	Sam Smith	(*dichlamydea* v. *trinitensis* x *fendleri*) X *fasciata*	
AE 'Nelwyn' 04-28-92	CU	J. Anderson	Cultivar of *AE pedicellata* with albino flowers and yellow ovaries	
AE 'Orange River' 05-16-94	CU	Sam Smith	*cucullata* X *retusa* - Cultivar of natural hybrid from Ecuador	
AE 'Sangria' 05-27-94	CU	Wally Berg*	Cultivar of *AE fasciata* with deep wine colored foliage and contrasting silver bands	
X Androlaechmea (Androlepis X Aechmea)				
AA Sampson 05-16-94	GR	Sam Smith	*AE tessmannii* X *AL skinneri*	
Billbergia				
BI 'Ballerina' 04-01-92	CU	D. Beadle	Catherine Wilson X *vittata* 'Colores' (#996)	
BI 'Bam' 01-14-93	CU	D. Uguccioni/ Selby Gardens	*tessmannii* X *zebrina*	

GENUS NAME	CULT/GREX	HYBRIDIZER	SEED PARENT	POLLEN PARENT
Billbergia				
BI 'Birdsong' 06-09-94	CU	D. Beadle*	*saundersii* species? hybrid?	
BI 'Brimstone' *06-09-94*	CU	D. Beadle	*amoena* v. *amoena* 'Beryl Allen' X *euphemiae* v. *purpurea* (#746)	
BI 'Carioca' 06-09-94	CU	D. Beadle	'Poquito Blanco' X Gothensis (#586-A)	
BI 'Catherine Waterman' 06-09-94	CU	D. Beadle	Catherine Wilson X Muriel Waterman (#408)	
BI 'C'est Bon' 06-09-94	CU	D. Beadle	*sanderiana* X *amoena* v. *amoena* 'Ed McWilliams' (#890)	
BI 'Cobre' 06-09-94	CU	D. Beadle	Gothensis X 'Poquito Blanco' (#591)	
BI 'Crystal' 04-01-92	CU	D. Beadle	(*sanderiana* x Catherine Wilson) X 'Poquito Blanco'	
BI 'Dorothy Novak' 05-01-92	CU	A.J. Novak	*amoena* v. *amoena* X *sanderiana*	
BI 'El Capitan' 06-09-94	CU	D. Beadle	'Manda's Othello' X *zebrina* (#1138)	
BI 'El Jefe' 06-09-94	CU	D. Beadle	*vittata* X Thelma Darling Hodge (#944)	
BI 'Ellen' 06-07-94	CU	D. Beadle	Olive Baldwin X 'Poquito Blanco' (#821)	
BI 'Esplendido' 06-09-94	CU	D. Beadle	*distachia* v. *maculata* X *euphemiae* v. *purpurea* (#424)	
BI 'Fandango' 04-01-92	CU	D. Beadle	*vittata* 'Colores' X *amoena* v. *rubra* (#849)	
BI 'Feliz Navidad' 06-09-94	CU	D. Beadle	Kline's Red Wine X *amoena* v. *viridis* (#801)	
BI 'Fiesta' 06-09-94	CU	D. Beadle	'Poquito Blanco' X *pyramidalis* v. *pyramidalis* (#777)	
BI 'Frolic' 04-01-92	CU	D. Beadle	*morelii* X 'Poquito Blanco' (#647)	
BI 'Galaxy' 06-09-94	CU	D. Beadle	'Poquito Blanco' x *euphemiae* v. *purpurea* (#755)	
BI 'Gargoyle' 06-09-94	CU	D. Beadle	(*sanderiana* x *amoena*) X *morelii* (#660)	
BI 'Georgia' 06-09-94	CU	D. Beadle*	variegated form of *euphemiae* v. *euphemiae*	

GENUS NAME	CULT/GREX	HYBRIDIZER	SEED PARENT	POLLEN PARENT
Billbergia				
BI 'Hellfire' 06-09-94	CU	D. Beadle	*amoena* v. *amoena* 'Beryl Allen'	*amoena* v. *amoena* 'Selby-Seidel' (#666)
BI 'Hombre' 06-09-94	CU	D. Beadle	*amoena* v. *rubra* X 'Poquito Blanco' (#748)	
BI 'Jeff Ross' 06-09-94	CU	Jeff Ross D. Beadle*	*sanderiana* X *amoena* hybrid	
BI 'La Noche' 06-09-94	CU	D. Beadle	'Esplendido' X Muriel Waterman (#955)	
BI 'Mamie B.' 04-01-92	CU	D. Beadle	Kline's Red Wine X 'Caliente' (#951)	
BI Marie 01-13-93	GR	D. Uguccioni/ Selby Gardens	*tessmannii* X *eloiseae*	
BI 'Margarita' 04-01-92	CU	D. Beadle*	*iridifolia*? X *pyramidalis*?	
BI 'Muchacho' 04-01-92	CU	D. Beadle	*horrida* v. *tigrina* X *vittata* 'Colores' (#421)	
BI 'Nita' 04-01-92	CU	D. Beadle	(*vittata* x *vittata*) X 'Caliente' (#945)	
BI 'Picador' 06-09-94	CU	D. Beadle	*sanderiana* X Fantasia (#879)	
BI 'Primavera' 04-01-92	CU	D. Beadle	Olive Baldwin X Kline's Red Wine (#997)	
BI 'Ralph Graham French' 05-10-92	CU	K. French	Cultivar of *vittata;* albomarginated and variegated with clear pink	
BI 'Rosita' 04-01-92	CU	D. Beadle	'Baton Rouge' X *amoena* v. *viridis* (#145)	
BI 'Sangre' 06-09-94	CU	D. Beadle	(*horrida* v. *tigrina* x 'Baton Rouge') X *stenopetala* (#1191)	
BI Sarasota 1-14-93	GR	D. Uguccioni/ Selby Gardens	*decora* X *tessmannii*	
BI 'Selby' 01-13-93	CU	D. Uguccioni/ Selby Gardens	*tessmannii* X *eloiseae*	
BI 'Simpatico' 06-09-94	CU	D. Beadle	*amoena* 'R.L. Frasier' X *vittata* 'Colores' (#1096)	
BI 'Sunset' 01-14-93	CU	D. Uguccioni/ Selby Gardens	*decora* X *tessmannii*	
BI 'Tres Bien' 06-09-94	CU	D. Beadle	*amoena* v. *amoena* 'Ed McWilliams' X *sanderiana* (#871)	

GENUS NAME	CULT/GREX	HYBRIDIZER	SEED PARENT	POLLEN PARENT
Billbergia				
BI Wham 01-14-93	GR	D. Uguccioni/ Selby Gardens	*tessmannii* X *zebrina*	
Billmea (Billbergia X Aechmea)				
BM 'Pasquale' 06-9-94	CU	D. Beadle	*BI pyramidalis* v. *pyramidalis* X *AE recurvata* v. *benrathii* (#870)	
Cryptbergia (Cryptanthus X Billbergia)				
CB Hazel Quilhot 06-03-94	GR	B. Stickney	*CR sinuosus* 'Carioca' X *BI elegans*	
Cryptanthus				
CR 'Angel Dust' 01-20-94	CU	Jim Irvin	Zonatus Silver X 'Peaches'	
CR ' Betty Ann Prevatt' 01-20-94	CU	Jim Irvin	Icecicle X Black Mystic	
CR 'Blake Babcock' 01-20-94	CU	Jim Irvin	Pink Brocade X *zonatus*	
CR 'Cappuccino' 01-20-94	CU	Jim Irvin	'Cafe au Lait' X. Goldie Langdon	
CR 'Double Fudge' 01-18-94	CU	Jim Irvin	San Juan X Melanie	
CR 'High Voltage' 01-20-94	CU	Jim Irvin	Kamehameha X Zonatus Silver	
CR 'Irish Mist' 01-20-94	CU	Jim Irvin	'Cloudcover' X Ocean Mist	
CR 'James Frederick Irvin' 01-20-94	CU	Jim Irvin	'Cloudcover' X Ocean Mist	
CR 'John Judge' 01-20-94	CU	Jim Irvin	Stone Grey X Fond Memory	
CR 'Key Lime Pie' 01-20-94	CU	Jim Irvin	Diverse Pink X Ocean Mist	
CR 'Rusty Rose' 01-20-94	CU	Jim Irvin	Pink Brocade X *zonatus* 'Kit Hilbers'	
CR 'Scott Irvin' 01-21-94	CU	Jim Irvin	Diverse Pink X *zonatus* 'Kit Hilbers'	
CR 'Turbulence' 01-22-94	CU	Jim Irvin	Fond Memory X *zonatus* 'Kit Hilbers'	

GENUS NAME	CULT/GREX	HYBRIDIZER	SEED PARENT	POLLEN PARENT
X Guzvriesea (Guzmania X Vriesea)				
GV 'Marian Oppenheimer' 07-01-93	CU	DeRoose/ Waterschoot Herb Hill, Jr.*	*Vriesea* x viminalis-rex	X *Guzmania lingulata* v. *minor*
Neoregelia				
NE 'Angel Face' 12-28-91	CU	G. Hendrix C. Johnson*	(*olens* x 'Fireball') x *compacta*	X 'Bob Read' x *carolinae* (Cultivar from Hendrix grex #8502)
NE 'Beau Geoff' 12-28-91	CU	C. Johnson*	Cultivar of *concentrica* from Seidel seed in 1982	
NE 'Bertie' 05-01-92	CU	Bert Foster Peggy Bailey*	'Meyendorffii' x *johannis*	
NE 'Cameo' 01-02-92	CU	C. Johnson*	Cultivar of *concentrica* from Seidel seed in 1982	
NE 'Cheers' 12-28-91	CU	G. Hendrix C. Johnson*	*olens* X *pauciflora* (Cultivar from Hendrix grex #8110)	
NE 'Domino' 12-28-91	CU	G. Hendrix C. Johnson*	*chlorosticta* X *pauciflora* (Cultivar from Hendrix grex #8804)	
NE 'Esther Fenton' 01-02-92	CU	C. Johnson*	Cultivar of *concentrica* from Seidel seed in 1982	
NE Kahala Dawn 06-28-91	GR	R.T. Okazaki	Rufus X *carolinae* 'Meyendorffii' (variegated)	
NE 'Kismet' 12-28-91	CU	C. Johnson	Cultivar of Pink Polka Dot (F-2)	
NE Lois Bullis 5-16-94	GR	H. Bullis	Catherine Wilson X *carolinae*	
NE 'Lord Jim' 12-28-91	CU	C. Johnson*	Cultivar of *concentrica* from Seidel seed in 1982	
NE 'Marsala' 05-16-94	CU	H. Bullis Peggy Bailey*	Cultivar of Isabel	
NE 'Maya' 05-16-94	CU	H. Bullis	Catherine Wilson X *carolinae* Cultivar of Lois Bullis	
NE 'Pewter' 01-02-92	CU	C. Johnson*	Cultivar of *concentrica* from Seidel seed in 1982	
NE 'Pot Luck' 12-28-91	CU	C. Johnson*	Cultivar of *concentrica* Seidel seed in 1982	
NE 'Red Waif' 12-28-91	CU	G. Hendrix C. Johnson*	'Zebrina' X 'Fireball' (Cultivar from Hendrix grex #7902)	
NE 'Tar Baby' 12-28-91	CU	G. Hendrix C. Johnson*	(*ampullacea* x Royal Flush)	X *pauciflora* (Hendrix grex #8103)

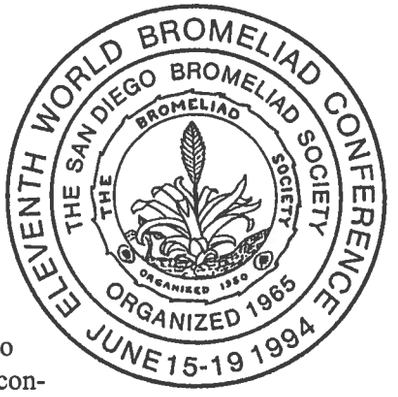
GENUS NAME	CULT/GREX	HYBRIDIZER	SEED PARENT	POLLEN PARENT
Neoregelia				
NE 'Twinkie' 12-28-91	CU	C. Johnson	*carolinae* X *cyanea*	
Pitcairnia				
PI Beaujolais 01-20-94	GR	Jim Irvin	*rubronigriflora* X *smithiorum*	
PI Coral Horizon 01-20-94	GR	Jim Irvin	*rubronigriflora* X *corallina*	
PI Pinot Noir 01-20-94	GR	Jim Irvin	*rubronigriflora* X *xanthocalyx*	
Puya				
PU Doris Coleman 02-18-91	GR	A. Flower	*alpestris* X *spathacea*	
Tillandsia				
TI 'Wildfire' 02-04-91	CU	John Arden	*multicaulis* X *deppeana*	
TI Creation 06-24-94	GR	Corn. Bak P. Koide*	*cyanea* X *platyrachis*	
Vriesea				
VR Elvira 02-04-91	GR	John Arden	*bleheri* X *hieroglyphica*	
VR 'Golden Tips' 02-04-91	CU	John Arden	Maroon Feather X *simplex* Cultivar of Maroon Delight	
VR 'Inferno' 02-04-91	CU	John Arden	*ensiformis* X *regina*	
VR Maroon Delight 02-04-91	GR	John Arden	Maroon Feather X *simplex*	
VR Slim 02-04-91	GR	John Arden	*gigantea* 'Nova' X *flammea*	

NOTE: The parentheses enclose the cross of one of the parents of the cultivar. That cross is indicated by a lower case x (multiplication sign). The upper case X indicates the major cross between the parents of the cultivar.

The * indicates the person who named the plant. The person's name without the * is the hybridizer. Please see the *Preliminary List* (inside front cover) for further details.

A number following the formula for a cross indicates the hybridizer's identifying number assigned to that cross.

The 1994 World Conference: Bromeliads in Paradise



Part I
The General View

Chet Blackburn

What is it about bromeliads that causes otherwise sane and rational human beings to travel clear across country to attend a five-day conference centered on them? The conference this year was attended by members from 40 states and 14 other countries.

Is it their color? Certainly no other plant around has as wide a range of colors or uses them so heavily on plant parts other than flowers. In bromeliads, the flowers seem to be almost an afterthought, with the bulk of the color appearing in bracts, scapes and foliage.

Is it their form? Bromeliad forms range from graceful and pleasing to bold and intimidating. Some of the tillandsias are even a bit on the bizarre side.

Is it their epiphytic habit? Many people are intrigued that there are plants around that can thrive without soil. Bromeliads are truly among the most diverse and bizarre life forms in existence.

For whatever the reasons that put them there. In mid-June of this year, there was a heavy concentration of bizarre and colorful life forms on the grounds of San Diego's Hanalei Hotel...and some of them even brought bromeliads to exhibit!

There was no shortage of things to do. Behind-the-scenes tours were scheduled for Sea World, the San Diego Wild Animal Park, the famous San Diego Zoo and Quail Botanical Gardens. The Sacramento contingent, of which I was a part, was unable to attend most of the preconference tours, partially because a "behind-the-scenes" tour of a zoo conjures up images of stepping in stuff. Mostly though, it was because we did not arrive in time to participate, or were otherwise engaged in setting up our display. Those who did go on the tours enjoyed them and still managed to come back with relatively clean shoes.

So did those who went on the private garden tours to the homes of Jim Wright and Bill Tweet. The Wright home proved to be a 30-year-old oasis of some 70 species of lush, tropical palms rising abruptly out of an otherwise typically flat, suburban neighborhood. Jim's property is a textbook example of full utilization of available space with every nook and cranny stuffed with a bromeliad, orchid, or some other exotic plant.

The other private garden visited was equally interesting but for just the opposite reason. Bill Tweet's recently constructed home is on the crest of Tecolote Canyon and is newly landscaped. It features an excellent view and meandering paths through the new plantings. Bill is a tillandsia collector and has scattered pockets of tillandsias in small lath structures to come across as you amble along the pathway.

The popularity of the rare plant sale was evident in the fact that the room was packed full of people in spite of the fact that it took place during the O.J. Simpson chase that the rest of America was watching. The silver-tongued duo of John Anderson and Herb Hill coerced the crowd out of almost $7,800 for the benefit of the Bromeliad Identification Center at Selby Gardens. The biggest bid of the evening was $1,200 for a set of the BSI Journal.

Plant sales were brisk and rightfully so. An incredible amount of material was available including a number of new introductions and rare items.

A full slate of seminars on a variety of topics was presented and well attended. Brazilian taxonomist Elton Leme was the featured speaker this year; providing an overview of Brazilian species during one program and presenting a proposed revision of the genus *Nidularium* in another.

The showroom itself was as addictive as usual. The traffic flow generally went first from the sales area, then to the show room, then quickly back to the sales area with a new "want list" in hand. Nothing boosts interest in a bromeliad more than seeing it grown to the peak of its potential, and there were many such plants in the show .

One of the original founding members of the society Elmer Lorenz spoke on the origins of the BSI during the Saturday evening Polynesian buffet. This was followed by a Polynesian review, complete with song and dance, colorful costumes, and a firedancer. One would have to question the wisdom, however, of exposing the crowd to the sight of Don Beadle in a hula skirt so soon after a full meal.

The post-conference tours to Birdrock Tropicals Nursery and to vriesea hybridizer John Arden's private garden were also greatly enjoyed by those who participated. The quality of their bromeliads and the cleanliness of their growing conditions are so well known that they need no elaboration.

Many people put a lot of time and effort into making this year's conference a success. They all deserve to be recognized for their efforts but they are too numerous to do it here. We'll have to leave it to Conference Chairperson Joyce Brehm to pass out the individual pats on the back. In the end, the only real measure of success for a world conference is whether or not the participants enjoyed themselves. Mission accomplished, San Diego!

720 Millertown Rd., Auburn, CA 95603

Bob Monteith

Figure 7.
Deuterocohnia brevifolia. Best of show. Entered by Joyce Brehm.

Bob Monteith

Figure 8.
Neoregelia princeps x 'Marble Throat'
Winner: Individual specimen plant, foliage. Entered by Pamela Leaver.

Bob Monteith

Figure 9.
Tillandsia yunkeri

Winner: Individual specimen plant, blooming.
Entered by John Arden.

Bob Monteith

Figure 10.
Vriesea delicatula.
Winner: Multiple specimen plant. Entered by John Arden.

Part II
11th World Bromeliad Conference Award Winners

Compiled by Roger Lane, Judges Chairman

SWEEPSTAKES WINNER:
Thelma O'Reilly

Category I. HORTICULTURE

Best of Show (Mulford B. Foster Award for Horticultural Excellence):

Winner: *Deuterocohnia brevifolia* (figure 7)
Joyce Brehm

Division I. Individual Specimen Plant - Section A. Foliage:

Winner: *Neoregelia princeps* × 'Marble Throat' (figure 8)
Pamela Leaver

Runners-up: *Aechmea* Nigre
Thomas Koerber

Vriesea ospinae var. *gruberi*
Wayne Schuster

Aechmea triangularis
Don Patterson

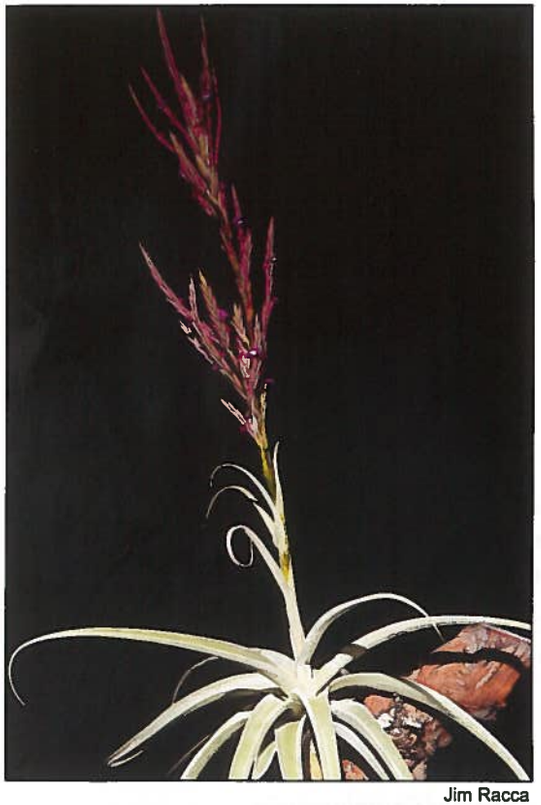
Cryptanthus 'Red Satin'
Inge Whitman

Division II. Individual Specimen Plant - Section B. Blooming:

Winner: *Tillandsia yunkeri* (figure 9)
John Arden

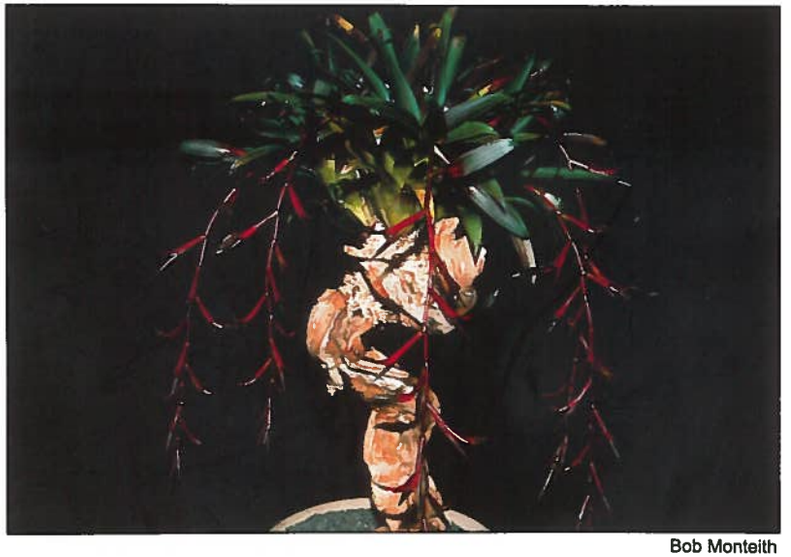
Runners-up *Guzmania sanguinea* var. *brevipedicellata*
Frank Hayen

Tillandsia cyanea × *platyrachis*
Pamela Koide



Jim Racca

Figure 11.
Tillandsia duratii x *cacticola*
Winner: Horticultural Display
Entered by Mark Dimmitt.



Bob Monteith

Figure 12.
Tillandsia leiboldiana var. *guttata.*
Winner: Decorative container. Entered by John Arden.

Division III. Multiple Specimen Plants

Winner: *Vriesea delicatula* (figure 10)
John Arden

Runners-up: *Deuterocohnia brevifolia*
Jennie Wisley

Quesnelia marmorata
Leslie Lanning

Neoregelia punctatissima
Ted Johnson

Guzmania sanguinea var. *brevipedicellata*
Frank Hayen

Cryptanthus 'Jimmy Antle'
Morlane O'Donnell

Division IV. Horticultural Displays

Winner: *Tillandsia duratii* × *cacticola* (figure 11)
Mark Dimmitt

Runners-up: *Tillandsia concolor* × *streptophylla*
Sherry Galceran

Tillandsia straminea
Jim Wright

Tillandsia plumosa
Jack Percival

Tillandsia tectorum
Jack Percival

Tillandsia ionantha 'Rosita'
Maura Williams

Tillandsia mauryana
Dennis Galceran

Category II. ARTISTIC DESIGN

Best of Show (Morris Henry Hobbs Award for Artistic Excellence)

Winner Artistic arrangement: Black Gold!
Ted and Jackie Johnson

Division V. Decorative Containers

Winner: *Tillandsia leiboldiana* var. *guttata* (figure 12)
John Arden

Runners-up: *Aechmea* 'Aztec Gold'
Maura Williams

Cryptanthus bivittatus var.*bivittatus*
Inge Whitman

Division VI. Artistic Arrangements

Winner: California Gold!
Ted and Jackie Johnson

Runners-up: Westward Ho!
Ted and Jackie Johnson

California Gold!
Inge Whitman

Category III. SPECIAL ENTRIES

Division VII: Special Exhibitors - Section A. Judge

Artistic arrangement: Bird of Paradise
Michael Young

Division VIII: Exhibits

Winner: La Ballona Bromeliad Society and
South Bay Bromeliad Association

Section A. Decorative

Winner: Floor Display
Bird Rock Tropicals Nursery

Section B. Educational

Table Display
Dorothy Byer

Category V. ORIGINAL ART

Division IX: Exhibitor-Produced Original Art

Winner: Woodcut (untitled)
Stephen Littlefield

Runners-up: Serigraph of *Tillandsia leonamiana*
Richard Kaz

Stamp art: Bromeliad subjects
Val Oleson

THIS IS THE FIRST TIME that the results of a World Bromeliad Conference show competition have been published (was there another time?). The judging is hard on the feet but fun. Compiling the results is tedious. Photographing the entries is a test of skill with the camera and the ability to work under trying conditions. Combining the results with pictures is a pleasure. We are sorry that there are no pictures of the Division VI through IX entries. If suitable slides come in pretty soon we shall see what can be done to fill that gap. We thank those who helped with gathering this information: Chet Blackburn, Joyce Brehm, Roger Lane, Bob Monteith, Jack Percival, Jim Racca, and Charlien Rose.—Ed.

Decisions Made at the June 1994 BSI Meetings

These notes are a digest of the minutes of the 1994 annual general and the Board of Directors' meetings held in San Diego, California on 15 June 1994. The minutes have been distributed to the members of the board and are subject to approval at the next annual meeting.

1. The annual general meeting was convened on 15 June 1994 and then adjourned for lack of business items.

2. The annual Board of Directors' meeting was convened immediately following the general meeting. All members were present except Enrique Graf, and Maurice Kellett (international members), Clyde P. Jackson, Thelma Mean, and Sharon Garcia whose absences were excused. Polly Pascal did not attend because of a misunderstanding.

3. Memorial tributes. The Board paid tribute to the memory of Honorary Trustee Roberto Burle Marx who died on 4 June 1994, and Crystal Jackson, wife of Treasurer Clyde P. Jackson who died on 13 June 1994.

4. Changes in Board composition: (Please see the directory on page 239 for a complete list of officers, directors, honorary trustees, and committee heads).

1 January 1994–31 December 1996 – Lloyd Kiff and Roger Lane, both *California,* and Hattie Lou Smith, *Florida.*

16 June 1994–31 December 1996 – Doris D. Bundy, *Northeast*, to replace Albert Hodes; Sharon Garcia, *Southern* to succeed herself; Linda Hornberger, *Central*, to replace Thelma Mean; Sally Thompson, *Western*, to replace Mark Dimmitt. [Note: This is an irregular term because the nominations and elections of the new members were not made according to the prescribed schedule (with no fault to be attributed to those individuals)]. Their nominations were accepted by the Board as an exception to the bylaws and they were then elected to serve the remainder of the term. There being no nominations of their replacements, Enrique Graf and Jacqui A. Watts were continued in office.

1995–1997 – Peggy Bailey, *Florida,* and John Anderson, *Texas.*

5. Election of officers and committee chairmen (please see page 239 for addresses):

a) T.U. Lineham to continue as editor.

b) Carol M. Johnson, chairman, Affiliated Societies Committee.

c) Roger Lane, chairman, Judges Certification Committee.

d) Jim Racca, Slide Librarian.

e) John Anderson, chairman, Nominations Committee.

6. Old business.

a) The chairman of the World Conference Committee proposed in his 1993 report that he prepare written guidelines to help host societies prepare for future world conferences. No report was made.

b) The writing contest approved in 1993 will be defined and given publicity by Mr. Head and Mr. Wolfe.

c) The project proposed by Pamela Koide to survey the range of *Tillandsia mauryana* with the financial assistance of the society was not performed.

7. New business.

a) Conservation. It was moved that participation by the BSI in matters regarding CITES agreements be limited to the preparation of a statement of position: The BSI is opposed to the listing of genera and families because, in our opinion, such broad regulations do more harm by impeding legitimate work than they do good by protecting rare species. And that: the BSI appropriate up to $1,000.00 for the purpose of assisting the United States representative to CITES. Both were motions approved.

b) Editor. It was moved that the custodians of back issues of the BSI JOURNAL (Dr. H.W. Wiedman and the editor) take immediate action to ship limited quantities of each volume to the Publication Sales chairman to be offered by her for sale at current prices. Approved.

c) Judges Certification. A motion to instruct the incoming chairman to study how judge-candidates of the Australian Region can be trained and certified. Approved.

d) Membership secretary. There were two motions made:

1) To amend paragraph 5, Standing Rule 3 of the Bylaws concerning the duties of the Membership Secretary to include the publishing of a directory of BSI membership at regular intervals, and 2) to specify that the directory include alphabetical and geographical lists, a list of affiliated societies, and the identification of accredited judges. Both motions subject to budget approval. Approved.

e) Seed Fund. The suggestion was made and approved that seed sales be limited to species seed identified as to origin, with distribution restricted to BSI members.

f) World Conference Committee. A motion was made to accept the proposal from the Bromeliad Society of Central Florida, the Florida East Coast Bromeliad Society, and the Seminole Bromeliad Society to host on a joint basis the 1996 World Bromeliad Conference in the Orlando, Florida, area subject to their agreement on site, chairman, and date. Approved.

g) The election of Harry E. Luther to be an honorary trustee was recommended by the Selection Committee and approved by the Board.

h) A motion to accept the applications for affiliation by the Bromeliad Society of East Florida (DeLand) and the Sociedade Brasileira de Bromélias (Rio de Janeiro). Approved.

i) A motion to change the name of the society to The Bromeliad Society International was approved. Decisions concerning the effective date of change, the extent of the change to include such details as the California charter, the articles of incorporation, financial records, the title of the JOURNAL, letterhead stationery, and related details were to be decided over time.

j) A request for a financial contribution from the New York Academy of Sciences to support a conference on forest canopy research to be held at Selby Gardens in November 1994 was disapproved.

k) A list of long-term goals for the society was presented by Thomas W. Wolfe to include "programs of conservation and preservation of natural species and habitats of bromeliads." The goals were discussed but considering their scope and potential cost, no decision was made. Instead, a motion was approved to appoint a committee to be chaired by Mr. Wolfe to conduct a feasibility study of the proposals with the results to be presented to the board at the 1995 annual meeting.

l) The 1995 budget, as amended, was approved. It will be published in the November–December 1994 issue of the JOURNAL.

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The Bromeliad Society, Inc.

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.

Tillandsia xiphioides var. *tafiensis* L.B. Smith was originally misidentified as *T. friesii* by Alberto Castellanos but in 1970 Dr. Lyman B. Smith described it as a new variety of *T. xiphioides* with floral bracts 5–6 cm long, sepals 30 mm long, and violet petals. *T. xiphioides* var. *xiphioides,* in contrast, is described as having slightly longer floral bracts and sepals and white petals. A plant called "var. tafiensis" is shown in P.T. Isley's book TILLANDSIA with white flowers. Our specimen, shown here, has distinctly violet flowers and in other respects matches Dr. Smith's description.

Derek Butcher
Adelaide South Australia

Calendar

3–4 September	Southwest Bromeliad Guild 23rd Annual Show and Fall Meeting. Barnwell Art and Garden Center, Clyde Fant Parkway, Shreveport, LA. Harvey C. Beltz 318-635-4980.
10 September	The Florida Council of Bromeliad Societies annual "Extravaganza." Sale, displays, seminars, dinner and auction at West Coast. Feather Sound Country Club, 2201 Feather Sound Dr., Clearwater, FL. Hosts Florida West Coast (the senior) Bromeliad Society. Fay O'Rourke, 813-531-9312 or Lois Duffey, 813-536-3682.
17–18 September	River Ridge Bromeliad Society Annual Show and Sale. City Park Botanical Gardens, 200 Victory Avenue, New Orleans, LA. Sale hours: Saturday and Sunday, 10 a.m. to 5 p.m.; show hours: Saturday, 1 p.m. to 5 p.m.; Sunday, 10 a.m. to 5 p.m. Shirley Alcock 504-887-3190.
15–16 October	Seminole Society Second Judged Show. Agriculture Center, Route 17-92, Sanford, FL. Saturday and Sunday 9 a.m. to 6 p.m. Peggy Nuse, 904-673-2648; Charles Tait 904-789-1052.
12–13 November	Caloosahatchee Bromeliad Society exhibition (not a judged show) and sale. Lee County Garden Council & Activity Center, Fort Myers, FL. (Located directly in front of Lee Memorial Hospital on U.S. 41 (Cleveland Ave.) about 1 mile south of the Caloosahatchee River Bridge). Saturday, 9 a.m. to 5 p.m.; Sunday 10 a.m. to 4 p.m. Marie Bessellieu 813-674-0656.