

# FLORIDA GOUNGIL of BROMELIAD SOCIETIES inc. Newsletter

This Newsletter published by Florida Council of Bromeliad Societies, Inc. & mailed to all paid up members of those Bromeliad Societies of Florida which make up the Council. Non-members may subscribe for \$2.00 per year. Make checks payable to:

Florida Council of Bromeliad Societies
Mail to: Carol Johnson, Editor at cover
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VOLUME IX - ISSUE II

MAY 1989

# VOLUME IX - ISSUE II, MAY 1989 CATCHING UP - STAYING EVEN Editor

BSI BALLOTS. Any BSI member in Florida who received the last issue of the JOURNAL without a ballot for election of BSI director from Florida, please contact the Editor, Mr. Thomas U. Lineham, Jr.; 1508 Lake Shore Dr.; Orlando, Fl. 32803 and he will send you one. Journal mailers finished with quite a few extra ballots. Since there is no contest in the election anywhere except Florida and Louisiana, Mr. Lineham is concerned that all members in those states receive ballots. The new BSI By-Laws require that the ballots be mailed in an official envelop with the signature of the voter on the back, so a specially mailed ballot will pose no threat to the validity of this election.

MOORE, ROBERT L.. Members of Florida West Coast Bromeliad Society and his many friends were devastated by the sudden illness and death of FWC President, Mr. Bob Moore, who passed away on May 2. He had lived in St. Petersburg since 1975 and was also a member of the St. Petersburg Garden Club and the Pinellas Branch of the American Begonia Society. He was a student judge in the Bromeliad judging school which convenes periodically in Ft. Myers and had attended the last session on April 22nd, just 10 days prior to his death. Our condolences to his wife and family. Vice President James Boynton will assume the Presidency of FWC and Michael LeVasseur will become Vice President and combine those duties with his present job of society Treasurer.

DONATIONS. Our Florida people have been coming through with much needed (and appreciated) donations to Florida Council's lean and mean treasury. The latest donation was from the Caloosahatchee Bromeliad Society, which held a plant sale at the local flower show, got out and worked hard, and then gave the net proceeds (\$235.75) to our Council. That amount just about pays for one entire issue of the Newsletter.

We also wish to thank Mrs. Frances Sanjurjo of Bromeliad Society of

South Florida for a personal cash donation to FCBS.

FELLOWSHIP. Any of you folks who can possibly do so, make a point of attending the shows &/or plant sales and demonstrations being held throughout the state. After several years of rather dwindling interest, suddenly the plants are back. The public is showing renewed interest in bromeliads. In addition to the beautiful plants, there are some very nice people to socialize with. We have just returned from the Miami show and I was as impressed by the people and the hospitality as with the lovely plants (537 entries). This is the same society which hosted the 1988 World Conference and one would expect a considerable let-down this year, but not so. There are many shows coming up. Enter plants if you can, or just attend, introduce yourself if need be and have a good time talking bromeliads with your fellow plant "nuts".

CONSERVATION COMMITTEE REVIEW: Printed elsewhere in this issue is a portion of a report received from Mr. Mark Dimmitt, Chairman of the BSI Conservation Committee. Please read it carefully. Mention is also made of this matter in the FCBS minutes (please note). SITES referred to is an international agreement which places certain plant families on endangered species lists and forbids or drastically reduces collection &/or commerce of those items. Florida Council is interested in your observations on this subject.

Editor: The Kew Magazine

Dear Editor:

The Conservation Committee of the Bromeliad Society, Inc. offers the following response to Mike Read's article entitled "Bromeliads Threatened By Trade", which appeared in the Kew Magazine, volume 6, Part 1 (February 1989).

The Conservation Committee of the Bromeliad Society, Inc. disagrees with Mr. Read's opinion (vol. 6, part 1) that most tillandsias are endangered and with his recommendation that the whole of the bromeliad family be listed under CITES. Our preliminary research has led us to different tentative conclusions:

- Most of the bromeliads in large-scale commercial trade are extremely abundant species and are in no immediate danger from collecting.
- There is virtually no information on the true status of most species which are reportedly rare.
- 3. The import figures used as the primary basis for the listing proposal are of little value because they are not itemized by taxon. Even if they were detailed, they would still be worthless without data on wild population sizes against which to compare the imports. Much more research is needed here.
- 4. There is more artificial propagation of bromeliads taking place than most conservationists are aware of. There is already a substantial movement away from wild plants in the trade.
- 5. Listing of entire families of plants under CITES is a very poor strategy which causes far more harm than good. CITES status greatly hinders both research and conservation efforts in developing countries (where virtually all bromeliads occur). Identifying and listing individual endangered taxa will be much more effective.

## DOCUMENTATION

Two years ago, the Conservation Committee began a project to assess the status of bromeliads throughout their natural range. We wrote to about 125 people who are involved with Bromeliaceae, a mixture of ecologists/botanists, professional nursery people, and knowledgeable amateur collectors. We received about 10 substantive responses. This response is based on these experts, our own first-hand field experience, a literature search on Bromeliaceae, and a considerable volume of literature on the state of tropical habitats in general.

Most bromeliads which are imported from wild sources are the epiphytic, xerophytic species of <u>Tillandsias</u> and a few other genera of similar habit. (We use the general term "tillandsia" and "tillandsioid" to include all bromeliads of a similar habit, regardless of genus). The great majority of tillandsias imported to the U.S. come from Guatemala and Mexico. The same is probably true of European and Japanese imports, because most of the species in the trade are native to those countries; in addition, we are aware of no major exporters in most other countries. Although there are over 200 taxa available in the commercial trade, nearly all of the volume is comprised of fewer than a dozen taxa (T.ionantha, brachycaulos, tricolor, caput-medusae, butzii, bulbosa, stricta, streptophylla). Of these, most are abundant and widespread species.

The import figures for bromeliads may seem alarming at first glance, but such information by itself is of little value for three reasons. First, the figures usually identify only family or genus; one has no way of knowing whether they are common or rare taxa. Second, import figures are meaningless unless compared to the population sizes in the collecting localities; see the discussion on this point below. Third, the reports don't say whether the plants were from wild or cultivated sources; this point is also discussed below.

# ABUNDANCE OF BROMELIAD SPECIES IN NATURE

A literature search which turned up 70 articles on <u>Tillandsia</u> yielded no <u>quantitative</u> data on the population sizes of any bromeliad species. (Two papers, though, described <u>T. aeranthos</u> as growing so abundantly that they are killing trees in Argentina.) However, a very large number of observations by numerous field workers supports the following conclusion: Most tillandsias are extremely abundant within their geographic ranges. They cannot be compared to cacti or orchids, as they often are. In a typical tropical tree, for example, tillandsias outnumber orchids by 10 to 100 times.

In 1982 Mark Dimmitt (unpublished data) measured a two-by-three kilometer patch of <u>T. purpurea</u> growing in the Peruvian coastal desert. This one population contained an estimated 300 million plants. Dozens of populations of similar extent occur along the Pan-Amer ican Highway.

To put this in perspective, the United States imports about 3 million bromeliads per year from all sources, wild and cultivated (IUCN, 1988). If all these plants came from the same patch of T. purpurea, it would amount to an inconsequential 1% of this single population. Furthermore, nearly one-half of these imported plants are from a single, cultivated source, the Netherlands. The remaining 1.5 million plants, taken from several common species, is not likely to have more than a temporary and very local impact. Bromeliads seem to be more popular in Europe than in the U.S.; but even if European imports are ten times higher, it would not significantly change the overall picture. Most tillandsias seed prolifically, and even if local populations were depleted, they probably recover in a few years.

There is little evidence to suggest that the less common species are being collected in deleterious numbers. These are rarely offered in wholesale lots, but are mostly restricted to the much smaller, retail trade among collectors.

Lastly, some purportedly rare species are not; they simply occur in remote, seldom visited localities. Examples are <u>T. chiapensis</u> (which is commonly believed to be restricted to a single canyon) and <u>T. ionantha</u> var. van <u>hyningii</u>. Several very large but unpublicized populations of these species have been found (Alfred Lau, Jr., pers. comm.). Much more field work is needed to document the distribution and abundance of bromeliad species, most of which are poorly known.

For these reasons, we respectfully register our difference in professional opinion with Professor Werner Rauh, who is one of a very few who feel that bromeliads are generally threatened by collection.

### ARTIFICIAL PROPAGATION OF BROMELIADS

Few conservationists seem to be aware of the magnitude of nursery propagation of bromeliads. This leads to the erroneous assumption that most imported bromeliads are wild-collected. Tropimaya and Bromeliifolia, the two major exporters in Guatemala, have several acres of growing grounds, and both are working to become, in time, independent of wild-collected plants for their commercial sales. At this time, over half the exports of Tropimaya are from propagated stock (Ann Harris, pers. comm.).

Bak's nursery in the Netherlands is probably the world's largest producer of bromeliads, and it is astonishing. There are dozens of greenhouses devoted to bromeliads. Even though tillandsias comprise a minor part of their operation, they have millions of tillandsia seedlings grown from their own stock plants. This operation employs 9 people who do nothing but pollinate flowers and sow seeds. DeMeyer in Belgium is also a huge nursery which is heavily engaged in seed propagation of tillandsias.

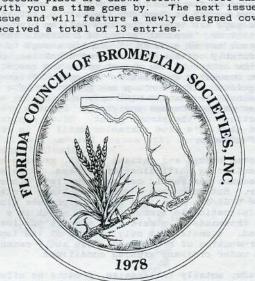
Mr. Read's statement that tillandsias are slow and difficult is also erroneous. They are extremely easy to propagate, needing no more substrate than plastic screen, and have virtually no pests or diseases. Nor are they slow, if cultivated under ideal conditions. The more vigorous tillandsias grow from seed to flower in as little as 3-1/2 years (T. stricta) to five years (T. flexuosa, caputmedusae, brachycaulos, streptophylla, bulbosa, ionantha, gardneri, meridionalis, etc.) (Dimmitt, in manuscript).

Vegetative propagation is also a commercially viable method of increase. Under high light and frequent fertilization, most species can be induced to produce 5 offsets per year, and these offsets mature in one year. A single plant can thus yield 3225 5 years.

Congratulations to John Worley of the Sarasota Bromeliad Society, and many thanks for supplying us with a most attractive new logo. John has received his \$100.00 prize money, and has donated it to the Sarasota Bromeliad Society. His entry won by one vote over that of James Stoll, who submitted his entry five years ago, saying at that time that we needed a more representative logo.

Many thanks to the following who also submitted excellent entries: Betty Ann Prevatt, Dottie Meyer, Ed Sargent, Kiti Wenzel, Elizabeth Kottka and George Schrader. One entry was received after the balloting. First & second place are shown below. I will share the rest of the entries with you as time goes by. The next issue will be the annual roster issue and will feature a newly designed cover using the new logo. We received a total of 13 entries.

THE WINNER:



RUNNER-UP:



# ARITHMETIC LESSON

Additions thru Multiplication, Subtraction & Division (No Square Root)

Last issue we had a geography lesson. This time an arithmetic lesson.

One of the first things a new bromeliad fancier learns is that most generally, the plants will bloom only once, produce offsets in some fashion, then die. Some growers never progress beyond the taking and growing on of these pups to perpetuate the collection.

There are other ways of increasing production, which see:
Multiplication: Offsets (pups) belong in this category and are
usually produced at the base of the plant. They should not be taken
off until large enough to fend for themselves, but it is usually true
that the more pups are taken, the more will be produced. My first
Acchmea chantini cv. 'Samurai' produced 8 offsets thru systematic
excision of each one as soon as it was big enough to plant. Some
bromeliads, notably certain Vrieseas and Guzmanias, produce new
plants from the center of the parent plant and removing them can
prove to be a traumatic experience. Example: Vriesea glutinosa,
Guzmania sanguinea. If you are a new grower or have only one plant,
perhaps you should be content with only one for one and just cut away
the old leaves as they become unsightly. Offsets are supposedly all
true reproductions of the parent plant. Often a plant grown from
seed will not show it's true character until it is grown from its
first crop of offsets.

If you are young enough and patient enough, growing bromeliads from seed is a fascinating multiplication process. Some seeds, such as those from Aechmea mertensii, can be grown into blooming size plants within a year. But some take a very long time. Vriesea heliconioides seed, planted 5/24/81, have just begun to produce blooms. The third form of multiplication is tissue culture, which is a scientific process of producing thousands of plants from a small portion of the meristem of a bromeliad. I mention it only because of its importance in the commercial production of bromeliads. You and I cannot accomplish this process under ordinary growing conditions.

Some bromeliads, notably Tillandsias, produce no offsets and can only be reproduced via the seedling method (or tissue culture).

SUBTRACTION: It is possible to take away and yet get more plants, and this is done be reversing the process of taking offsets. Instead, with a cluster of pups at the base of the plant, just cut away the spent and unsightly parent plant. Leave this cluster of plants to grow on together either in the original pot or a new, larger one. The result is usually smaller plants, but better color and conformation. Examples: Neoregelia fireball, N. ampullacea, N. compacta, Vrtesea carinata, V. lubbersii, V. flammea, and many Billbergias.

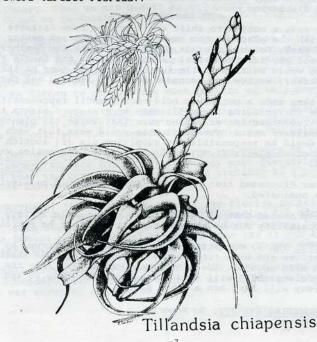
<u>DIVISION:</u> When plants become too thick in a pot, or on a tree limb, then we eventually must divide them. Sometimes the root ball is so thick it will break the pot or the pot must be cut away from the clump of plants. When root-bound the plants tend to become progressively smaller and weaker.

Some bromeliads can be divided, cut into pieces and new plants grown from the pieces. Cryptanthus cascade, for example, tends to become ugly after blooming, with the long stolons hanging over and

down from the basket. Cut off the long stolone, divide into pieces one to one and a half inches long. These are then buried in potting mix, perlite or sand, where they make new plants. There are Orthophytum species which can be divided in the same fashion, most commonly Orthophytum vagans, which actually produces root nodes on the sections of the upright stem. The Orthophytums are not as easy to grow in this fashion as C. cascade, and must never be allowed to dry out during the process. Some Tillandsias, notably T. secunda, are viviparous. This means offsets are produced from seed which germinates and grows on the parent plant. Then there is Tillandsia paucifolia, a form of which (called proliferating) continues to bloom, branch, bloom, branch. A big specimen can be divided into many fresh starts.

The strangest of all is the production of 'pseudobulbs'. This, to my knowledge, occurs only in the Fosterella and Pitcairnia genera. Pointed bulbs appear above ground surrounding the bloom spike, for all the world in the fashion of the orchids (or onions). Carefully divided and dried, these can be individually planted to produce new plants. Of course, with Fosterella, it's habit of broadcasting myriads of seed which produce plants in all the pots throughout the greenhouse, reproduction via the bulb method is rather superfluous, but interesting. Those Pitcairnia species which produce pseudobulbs should be allowed to start leaf production before dividing. Watch it, some of the Pitcairnia 'bulbs' also have wicked spines.

Carol Johnson (Please note: The next several issues will carry articles from other growers thruout Florida.)





# FLORIDA COUNCIL OF BROMELIAD SOCIETIES, INC.

MINUTES OF THE FCBS APRIL 8, 1989 MEETING

The meeting was held at the home of Carol Johnson, Longwood, Florida.

Nat DeLeon opened the meeting by introducing Sarasota's new representatives, Jane T. Danlin and Narda Enander. He also introduced and welcomed Tinker Massey, B. S. I. Slide Library Chairperson.

MINUTES: Minutes of the January meeting were approved as written.

TREASURER'S REPORT: Carol Johnson submitted the report which showed a balance of \$2,233.19. The report was approved as written.

BY-LAWS CLARIFICATION: Ellen Peyton was not present to report.

FLORIDA COUNCIL EXTRAVAGANZA: Sarasota representatives needed clarification on what the Florida Council expects of them and in regard to this affair and what exactly should the agenda be at this function. A lengthly discussion ensued.

Al Muzzell made a motion to shift the function from Sarasota to Seminole with the place of the event to be at the rec center in Earl Brown Park, Deland, Florida, August 19, 1989. The Seminole Society would pay for the rental of the building and handle the sale. FCBS would be responsible for the auction, some of the publicity and the speaker. Motion was seconded by Carol Johnson and passed.

Tom Wolfe then made a motion to hold each council representative responsible for bringing three (3) rare or semi-rare plants to the August 19, 1989 function or making sure that three (3) plants get there by whatever means necessary. This would mean that each affiliate would be responsible for supplying six (6) auction plants or a total of 60 plants from the 10 affiliates. The motion was seconded and passed.

It was later discussed that a speaker Chairman should be elected. Nat DeLeon was nominated.

Charles Tate stated that all this hinges on Seminole Society excepting this responsibility but he thought that it wouldn't be a problem.

LOGO CONTEST: The 13 submitted logo entries were reviewed by FCBS's representatives and were voted on by secret ballot. One absent "T" ballot was also counted. The winner was John Worley from the Sarasota Society. FCBS will send him a check for \$100.00 and the Miami Society will send him a rare plant.

FLORIDA BROMELIAD EXPERTS: No Report.

SPEAKERS/PROGRAMS: Ed Hall presented each representative with a list of speakers and also a list of programs and/or speakers from 1988/89 submitted by five affiliates. The purpose of which will give all our affilate program Chairman ideas for there own programs.

SELBY GARDENS PLAQUE: Narda Enander stated that Selby was working on a design for a plaque. It was stated that the object was to recognize that Selby Gardens is the Bromeliad Identification Center and should be placed in a bromeliad area of the gardens. This issue was then tabled until further contact could be made with Larry Pardue, Director of Selby Gardens.

STATIONARY: Charles Tate made a motion to have stationary made up with our new logo on it. This included envelopes. Tom Wolfe seconded the motion and it carried.

PROPOSED FCBS PROJECTS: SLIDE LIBRARY- Tinker Massey presented each representative with an updated list of available slide programs and the information on how to acquire these programs. Tinker discussed the content of each program and gave us an up-date on a program written by herself entitled water and light stress tolerance.

Charles Tate made a motion that FCBS stay out of the slide library business and let all donations and support go to the BSI Slide Library. Then we can use it as our source for slide programs. Tinker urged us to donate new programs or slides. Maken Carriel.

RARE PLANTS BEING REPRODUCED: It was suggested that Edith Howells and the Sarasota Rep's, Jane Darlin and Narda Enander, confer with the Selby management to attempt to work out a way to produce rare or endangered Bromeliaes through tissue culture using their facility. Nat stated that South Florida Society might be willing to sponsor an Intern to produce the work portion of this project.

BOB & CATHERINE WILSON BOOK: After discussion it was decided that as good an idea this is it just isn't feasible to produce Volume II because of cost and the absence of someone to do the writing.

REPRINTING OF FOSTER'S BOOK, "ORCHIDS OF THE TROPICS OR LOUIS WILSON'S BOOK, "BROMELIADS FOR MODERN LIVING": After much discussion it was decided that the cost factor again would probably be a problem so the issue was shelved for a future date.

FCBS QUARTERLY: It was discussed that the Florida Council might benefit in generating enthusiam for the FCBS by upgrading the quarterly newsletter. Some suggestions were: produce a glossy cover, have pictures of more common plants so that the novice can use it for ID purposes, and have basic cultural articles that would appeal to the novice.

Al Muzzell moved to give the Editor of the FCBS Quarterly, (presently Carol Johnson), full editorial control of all content of the quarterly. Motion was seconded and passed.

Ed McNulty moved that articles for the FCBS Newsletter be rotated through all ten societies to take the burden for writing articles off the editor. Roland Schnabel ammended the motion by stating that two societies be responsible each quarter (one article from each affiliate). The motion as ammended was seconded, voted on, and passed.

VIDEO TAPES: Video Tapes were discussed as a means of supplying home study groups with information, or as a Libraby item which could be checked out. Also to be used for workshops before a meeting. They could also be sold as a money making project at World Conferences, etc. After discussion, it was decided to table this project. To be brought up at future meetings.

CALOOSAHATCHEE DONATION: Peggy Bailey reported that the Caloosahatchee affiliate voted to have a plant sale at the Fort Myers Federation of Garden Clubs Show, and donate their share of the proceeds to the FCBS. They did this and presented the FCBS with a check for \$235.75.

Nat mentioned a letter from Harry Luther about the international trade in endangered species of flora and fauna. Someone is trying to get the genus Tillandsia placed on this list. Nat will follow up on this and keep us posted as to what we can do to stop this.

JUDGES SCHOOL AND SYMPOSIUM: Next Judge's School will be in Ft. Myers April 22, 1989.

Also a symposium will be held for existing judges at the same place simultaneously. Ron Schoenau reported tht guest speakers are planned and a full day of activity is in store. It will also be a time of make-up for judges that missed the last symposium.

 $\frac{\text{NEXT FCBS MEETING:}}{\text{July, 1989 meeting.}}$  The West Pasco affiliate is responsible for the

Respectfully submitted,

Tom Wolfe Secretary, FCBS



Kiti Wenzel

### COLLECTOR'S CORNER

### Two Unusual Pitcairnias

Pitcairnias are seldom seen in small collections, and for good reason. Their typical growth pattern tends toward long, floppy narrow green leaves which, in the non-blooming state, bear little resemblance to other bromeliads. They are a dead loss in exhibition, as they cannot survive the point scoring process. Members of the subgenus Pitcairnicideae (what else?), there are hundreds of species named, many with stunning blooms. I grow 8-10 species of Pitcairnia, only two of which I consider candidates for exhibition, blooming or non-blooming.

Pitcairnia tabuliformis. A flat-growing plant with soft light green leaves 2-3 inches wide, it scarcely resembles a bromeliad. Native to only one area in Mexico, it is not an easy plant to grow. It is best to grow in a 6" or 8" bulb pan and, since it grows on limestone cliffs in habitat, in rather sweet potting mix. Someone once told me to bury a Tums tablet in the potting mix periodically and, by golly, it did seem to make a difference. The bloom nestles flat in the center of the plant, which colors up and produces bright yellow flowers. Grow in low light, feed regularly, keep moist at all times, but allow to go dry in January & February to promote blooming. The plant is hard to find and expensive, probably \$15.00 to \$25.00. Be sure you purchase a healthy plant. Chewing insects love to eat the foliage.

Pitcairnia burle-marxii. This is a small to medium sized plant. Its leaves, about 3" wide & 4" long are numerous, green above and dark red on the reverse, although the whole plant gives the impression of being red. The many blooms are born on a raised spike, with bright red bracts enclosing yellow flowers. I grow my plants standing in trays of water, feed heavily and, again, dry out to induce dormancy in late winter. The plant blooms reliably for me every year and produces numerous offsets. It is also hard to find, as most growers persist in treating it the same as other bromeliads with disastrous results. It requires moderately low light. Cost, \$8.00 to \$10.00 for a single plant.

Both of the above Pitcairnia species self-seed liberally, with the seed in the form of a very fine dust.



Pitcairnia tabuliformis

# SHOW PAGE

5/26-28/89

Jacksonville Bromeliad Society Show at Orange Park Mall. Standard show. Entries invited. Membership & commercial sales. Entries Thursday, 9-11 p.m. Mall hours apply. Show Chairman, James C. Bailey; (904) 372-2990.

5/26-28/89

Bromeliad Guild of Tampa Bay 11th Annual Bromeliad Show. At Lowery Park Zoo; 7530 Boulevard North (W of 275, N of Sligh). Standard show. Entries invited. Entries Thursday, 5/25, evening. Judging Friday evening. Show Chairman Tom Wolfe; (813) 961-1475. \$3.00 admission to the Park. Sounds like lots of fun.

8/19/89

Seminole Bromeliad Society One Day Exhibition and Plant Sale at Earl Brown Recreational Park, Deland. Plant sales by members only. Set up 7:30 a.m., close at 4 p.m.

P L E A S E R E A D ON!!!
Immediately following the close of the Seminole Sale the hall will be turned over to the Florida Council of Bromeliad Societies for a benefit occasion. This will feature a speech by a noted bromeliad expert, followed by a light dinner and finally a rare plant auction -- 4 p.m. until? The local bromeliad societies will cater the dinner, but need to have advance reservations. Write for directional maps, also. Each FCBS rep is responsible for securing plants for the auction. (See FCBS Minutes this issue). Proceeds benefit the Florida Council. Chairman Chas. Tait, Jr.; 1442 Elkcam Blvd.; Deltona, Fl. 32725 (904) 789-1052. Or, contact the Editor at the cover address.

8/25-27/89

Greater Chicago Bromeliad Society Annual Show and International Cryptanthus Conference at Chicago Botanical Gardens. Contact J. Dolatowski; P. O. Box 352; Island Lake, Il. 60042.

9/1-3/89 \*

LABOR DAY WEEKEND. Florida State Bromeliad Show. At Florida Mall, Orlando. Standard Show, entries invited. Member plant sales only, but state show rules apply. Seminars, rare plant auction. Contact Betsy McCrory, Show Chairman, at (407) 348-2139.

October \*

Sarasota Annual Bromeliad Show at Selby Gardens.

11/10---- \*

VETERANS DAY WEEKEND. Annual Caloosahatchee Bromeliad Show & Plant Sale.

JUNE 1990 -\* WORLD BROMELIAD CONFERENCE, HOUSTON, TEXAS

More extensive coverage in Vol. IX, Issue 3, August 1989. Please get you copy to me early. Issue three is the killer for your Editor.