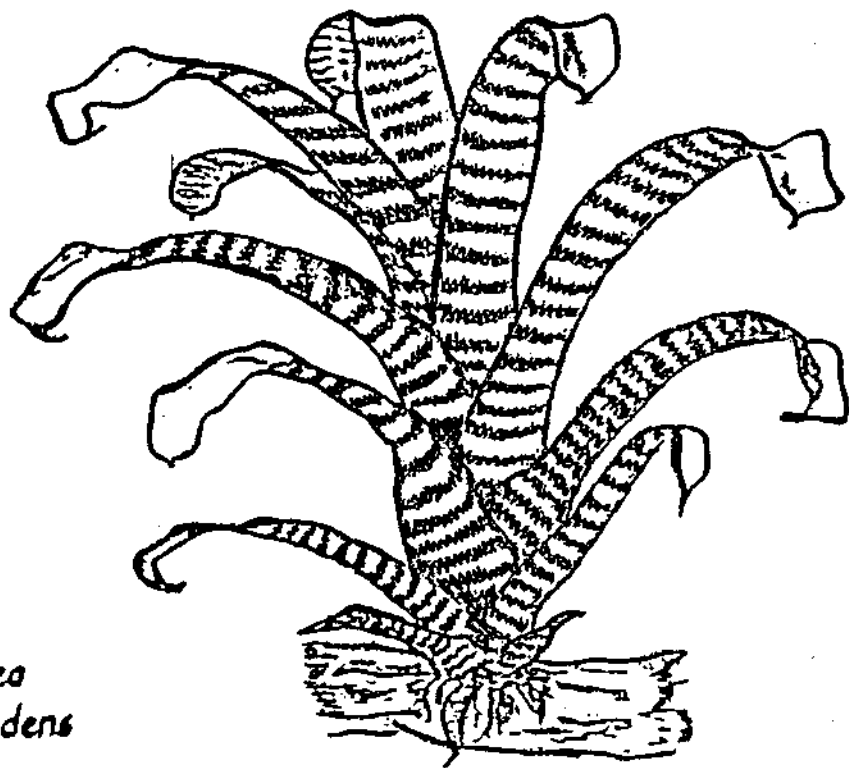


# Bromeliaceae

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JANUARY - FEBRUARY, 1990



*Vriesea  
splendens*

BROMELIAD SOCIETY OF QUEENSLAND

General Meetings are held on the third Thursday of each month except December at the Uniting Church Hall, 52 Merthyr Road, New Farm, commencing at 7.30 p.m.

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PATRON: Mr. H. Caulfield

PRESIDENT: Mr. John Higgins 8002561

SECRETARY: Mr. Greg Stewart 2779965

TREASURER: Mrs. Lorraine Wilton 3901266

EDITOR: To be appointed

COMMITTEE: Mrs. P. Hobbs, Mrs. P. O'Dea,  
Messrs. L. Butt, D. Hobbs,  
M. O'Dea, N. Ryan.

PROGRAMME:

JANUARY, 18th: General Meeting

Beginnings of the Combined Show  
by John Higgins

Plant Commentary by Phyllis Hobbs

Golden Oldie: Neoregelia

FEBRUARY, 15th: Annual General Meeting

Panel Discussion:- P. Hobbs, P. O'Dea,  
R. Paulsen

Plant Commentary by Olive Trevor

Golden Oldie: Aechmea

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EDITORIAL

Publication difficulties were advised in the previous edition of "Bromeliaceae" due to a shortage of articles for inclusion. This issue has been reduced in size to enable publication with the material available.

I would like to express my appreciation to those members who have contributed articles to enable this edition to proceed. With the election of an Editor and the assistance of members in contributing material, it is hoped that future publications will return to the regular schedule.

John Higgins

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GOLDEN OLDIES

In response to members' interest in featuring some of the earlier species and hybrids from our collections, a "GOLDEN OLDIE" section will be provided on the Competition Table at each meeting.

This will be an Open section for all members and will feature particular genera at each meeting.

The meeting in February featured AECHMEAS.

The meeting in March will feature NIDULARIUMS.

Because of the Mini Show in April, there will be no GOLDEN OLDIE featured.

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IDENTIFICATION OF HYBRIDS

In his book, "The Biology of Bromeliads", David Benzing devotes a section to the identification of hybrids. Although the procedure is intended for natural hybrids in habitat, with only few reservations the procedure can be used to check whether man-made  $F_1$  hybrids are true to parentage.

".....Many collectors encounter what appear to be natural hybrids in the field. These plants may in fact be spontaneous hybrids but should not be accepted as such until other possibilities have been considered. As we have already seen, individual plants with characteristics of two known populations may be nothing more than intermediates in a single polymorphic species. Although less likely, the questionable plant could be a common evolutionary ancestor or a close relation of the alleged hybrid parents.

Should the intermediate be, in fact an  $F_1$  hybrid, its pollen will consist of partly or entirely aborted grains. A second, rather more elegant test for hybrid status may be applied when appropriate materials are available. Set out some specimens of your suspected hybrid and one of its proposed parents. Now enlist the services of a person who is unaware of the identity of the second parent. Ask him to examine the two sets of specimens. Inform this person that the intermediate is a hybrid and that the second plant on display is one of its parents. Now instruct your observer to describe the characteristics of the unknown parent by extrapolation.

Suppose that your intermediate is a first generation hybrid between Tillandsia ionantha and Tillandsia caput-medusae and that you provided the observer with a hybrid and a specimen of T. caput-medusae. An astute observer will note that the hybrid is more compact and with shorter leaves and a smaller more condensed inflorescence. Since such gross aspects of the plant body are usually controlled by multiple genes or genes with incompletely dominant alleles

cont.

an  $F_1$  phenotype should be intermediate between its parents for these traits. The observer would therefore predict that the unknown parent has even shorter stouter leaves than the hybrid and a more compact inflorescence with fewer flowers.

After all the major traits have been considered and those of the unknown parent predicted, reveal the second suspected parent and see if his description fits. If it does, you probably have a natural  $F_1$  hybrid. Congratulate your detective. If your intermediate is a common ancestor or just a close relative of the two suspected parents, an accurate extrapolation would have been impossible....."

$F_1$	First filial generation. The first generation hybrid between two species
Genotype	The genetic make up of the plant
Phenotype	The detectable expression of the interaction of the genotype and the environment (what the plant looks like)

Peter Paroz

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FEES:

Members are reminded that fees are due and payable as at 1st January, and failure to do so will result in loss of membership rights.

FAMILY \$10.00 : SINGLE \$7.00

HOW TO DETERMINE THE CULTURE OF BROMELIADS  
FROM THEIR APPEARANCE

(This article by Walter Richter is reproduced from the Journal of the Bromeliad Society. The subject dealt with by Mr. Richter is still very applicable to the culture of bromeliads. Ed.)

Enthusiasm for bromeliads is gaining momentum everywhere. All over the world people are now growing these interesting plants, although in many instances, they do not know how to give them the correct care, and have trouble accordingly. It is not difficult, however, to provide the proper culture for bromeliads if one will study carefully the plants themselves.

Since the "Bulletin" is read in all parts of the globe, it is not possible to consider the growing conditions to be found in each country. Many of the hardy bromeliads can be grown out of doors in California and Florida, where many subtropical plants are raised; but in less favourable climates, these plants must be grown under glass. Here in my country, Germany, it is very difficult, and often impossible, to obtain a good colouring of the leaves with the sun-loving varieties because the intensity of the light is not sufficient. This article deals entirely with the care of bromeliads in the home or greenhouse. In an environment where conditions can be controlled, it is easy to grow bromeliads successfully.

Bromeliads differ from other plants in a number of ways. Most plants, depend upon water for their existence and have roots which absorb the water from the soil. This is not true with bromeliads. The root system of bromeliads is often insignificant and is used to attach the plant to branches, palms or cacti, and the roots absorb water only to a certain degree. Most of the water which a bromeliad consumes is taken through cells at the base of the rosette - the so-called scales or hairs on the upper or lower side of the leaves. The cells at the base of the leaves are not visible, and one cannot form an opinion from them as to the needs of the particular plant. It is

cont.

different, however, with scales. In many cases the appearance of the plant is determined by them. The best example of the decorative value of scales is Aechmea fasciata with its silvery grey banded leaves - one of the most beautiful of all bromeliads.

The growth and appearance of bromeliads are influenced greatly by their surroundings. Those varieties with smooth and brilliant leaves are natives of the rain forests, where favorable conditions are created by little variation in temperature and humidity. The rosettes are able to store water as a reserve for a less favorable time therefore there is no need for scales on the leaves. In the rain forests there is always shade and little change in growing conditions. There you will find growing Vrieseas, Guzmanias, and some of the Tillandsias such as T. flabellata, T. grisebachiana, T. lindenii, and others. All these plants need high temperature and humidity without periods of drying out. Protection from the sun is necessary for the successful growing of these plants, but dark, dank corners should be avoided.

In the next group of bromeliads, we find plants that will tolerate more light and lower temperatures. Among these are most of the Nidulariums and some of the Aechmeas, such as Ae. fulgens and Ae. miniata. These plants should, accordingly, be kept less warm and given more light than those coming from the rain forests mentioned above.

Next, we come to the bromeliads with visible scales. This group includes Neoregelias, Aechmeas, Billbergias, Cryptanthus, and a number of lesser known varieties. These bromeliads live under conditions where there are varying temperatures and where there are periods of no rainfall. As the rosettes cannot hold enough water for the periods of drought, these plants are provided by nature with numerous scales which help to catch any moisture, such as that which might be absorbed from nightly fogs. These bromeliads must also be given some protection from strong sunlight, although in the summer, they should be given as much light and air as possible. They do not mind a changing humidity and do not need to be kept too warm. Cryptanthus, however, are an exception, for they prefer a higher temperature and shade at all times. They will withstand a varying humidity. Aechmeas and

cont.

Billbergias with heavy leaves and strong spines should not be grown too soft, for they are found in their native habitat growing under less favourable conditions.

Another group of bromeliads are the Tillandsias, which are the most epiphytic of all genera, and which are found growing under the most adverse conditions. Many Tillandsias form no rosette at all. The roots having no purpose other than to attach the plants to branches, Tillandsias of necessity must be endowed with extreme scales. As these plants are used to being surrounded by constantly moving air and plenty of light, they will not tolerate a constantly wet condition but need to be dried out between waterings. Some need shade for growing and some will not tolerate direct sunlight. Tillandsias should not be kept too warm and should never be grown as houseplants, for the air would be too dry. They can, however, be grown in window boxes or in closed cases if the proper conditions can be provided.

Finally, there are the xerophytic bromeliads, such as Dyckias and Hechtias, which are rarely grown in Europe. These plants are to be found growing with succulents, such as the Agave, in regions where there is little rainfall. As these bromeliads are terrestrials, they have a well developed root system, which provides for the intake of water. Thus, there is no need for scales, which are seldom found, if at all. These bromeliads should be grown cool, but with little water especially during the winter and lots of air and light at all times,

It is difficult to describe in detail the many varieties of bromeliads in a short article, but it is possible to find the right solution as to their cultural problems from a close observation of the plants.

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NOVEMBER MEETING

The Xmas Break-up was held during the November meeting. Normal business for the evening was suspended to enable members and visitors to enjoy the less formal activities of the Xmas party.

Santa Claus made an unexpected visit and handed out presents to the children. Looking remarkably like Vice President Doug Upton, Santa proved to be very popular with the children. Our thanks go to Doug for his assistance, and to Secretary Greg Stewart who organised the gifts.

The supper organised and prepared by Yvonne Boorman, Eric Turner, Eileen Eisentrager and their willing band of workers, was again a highlight of the evening, enjoyed by all members and visitors.

The display was very well supported with a good mix of plants, which included some of the newer imports as well as the more traditional favourites. Plant Commentary was given by John Higgins and a lively discussion period followed, with comments from the members on various aspects of bromeliad culture.

The Giant Plant Raffle provided many excellent plants for members and visitors, with some real 'specials' leaving the meeting in the care of their lucky new owners.

The meeting provided a pleasant end to the activities of the year, and the organisers and workers are to be congratulated for its success.

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