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A CARNIVOROUS MAN

by Derek Butcher

(Reprinted from the July 2013 issue of BROMGAZETTE, newsletter of the BS of South Australia)

There is always something not planned at our meeting which is why you should always come along unless you are the sort that just waits for the Gazette, but then any news is old news. At this meeting we had a visit from a Carnivorous man – well that was how he was introduced.

He was no different to all other plant lovers, only this time it was Brocchinia reducta because he had a bromeliad



carnivorous plants - and Brocchinia reducta (from FCBS) waxy open top of long tube

he felt he should see the experts regarding growing techniques. There are very few Bromeliads that have evolved to have a taste for flesh. One is Brocchinia reducta and he brought one in to show us.

It has leaves formed into a tube like a Billbergia, only the top of the tube has a waxy coating making it slippery and allows insects to fall in to the water at the bottom of the tube. He quickly found out that this particular plant is not widely grown by the Bromeliad fraternity in Adelaide. In fact his best place to see one would be with Bill from Bute. Bill grows it and never flowers it and gets replacement stock from Melbourne. So we were not that helpful in giving advice as how to grow the plant.

Carnivorous plants have evolved to be able to survive in an environment where they get very little nut-

photo by Stewart McPherson photo by Stewart McPherson Brocchinia reducta

rient from the strata to which they may be attached. Plants generally get their nutrient from decayed matter whether flora or fauna and generally take this up via their roots. ...Plants will do anything to get a feed! Carnivorous plants may be considered even cleverer because they might realise that there is more nutrient in dead fauna than dead flora.

Let us now look how Broms got involved. Remember we are considering how bromeliads

evolved millions of years ago, when North and South America were separated, when the Venezuelan highlands were lowlands ready to be pushed up, and when the Amazon drained through Lake Maracaibo! Well, these lowlands did get pushed up to form the tepuis (high plateaus - Ed.) that we know today.

Imagine plants growing there had the ground beneath their feet going upwards with the inevitable change in climate. It was a case of die or evolve. Many Bromeliads grow up there today but try to grow them in your backyard. You see they have evolved to such an extent relying on specific natural conditions that they cannot survive unless those conditions are replicated.

There are a few exceptions and Brocchinia reducta is one. Not only is it used to harsh wet conditions but survives by being able to digest beetles

THERE WILL BE NO MEETING IN JANUARY. BEST WISHES FOR A JOYOUS HOLIDAY AND A HAPPY NEW YEAR and things. It doesn't actually trap them like the Venus Fly Trap but grabs any spare meal that might pass by.

(Insects that enter the waxy top of the long, narrow tube tend to slip all the way down. Once they have hit the water they will find it difficult to climb up and out. They will die and decay in the water and will provide nutrients to the plant. Ed.) So we were not much help in giving life-saving advice to our Carnivorous man whose best course of action would be to do the same as he does with his other carnivorous plants which have evolved in the wild due to similar restrictions in habitat. What was a very nice touch was that he brought in a box of Camellia flowers for us to share. May he come again!

A BRIEF HISTORY OF BROMELIADS

(A summary of a lecture given by Mrs. Sydney W. Lawrence at a meeting of the Florida West Coast Bromeliad Society as reported in the Newsletter of the FWCBS.)

The *Bromeliaceae* is a great family of plants said to be native only to the tropical and sub-tropical Americas. They were discovered and introduced into Europe by the early plant collectors where for at least a century they have been and still are classed among the finest and most desirable decorative plants. The first two species arrived in Europe in 1690. These were what are now known as *Ananas comosus*, our edible pineapple, and *Bromelia pinguin*.

When the first pineapple grown in England was presented to Charles II by his gardener, the event was of such importance that a painting was made of it, and that painting now hangs in the Victoria and Albert Museum in London.

The introduction of *Guzmania lingulata* occurred in 1776. In 1811 Kew Gardens had 16 species; in 1864 that number had mounted to 100, and by 1887 the total rose to 252 species. By 1894 the Botanical Garden of the Dutch University at Leyden had 334 species.

Many famous Belgian plantsmen played an important role in the introduction of bromeliads and the Botanical Garden at Liege had the largest collection in the 1880's while that Garden was under the directorship of Prof. Charles Morren. Later, the Morren collection was acquired by Kew Gardens.

Vriesea splendens was introduced from the Guianas in the 1840's and about that same time Aechmea fulgens came from Brazil. Aechmea fasciata, which our Miss Victoria Padilla calls "The Beauty Queen of the Bromeliad Family," was introduced into Europe in 1828 and flowered for the first time in 1846 at the establishment of Van Houtte in Ghent.

This one species is now grown commer-cially by the thousands in many European countries. Vast

greenhouses filled with this one species are not uncommon, and Vriesea splendens and Cryptanthus are grown in almost as great quantities.

The great Swedish botanist, Linnaeus, established the genus *Bromelia* which he named for another Swedish botanist, Olaf Bromel. Many genera of Bromeliads bear the names of other famous plantsmen of early times:

Billbergia was named for Gustave Johannes Billberg, Swedish botanist; *Guzmania* for A. Guzman, a Spanish naturalist; *Hechtia* for Julius Hecht of Potsdam; *Ochagavia* for Sylvestris Ochagavia, a Chilean; *Portea* for Dr. Marius Porte, a French naturalist who lived many years in Brazil; *Pitcairnia* for Dr. Wm. Pitcairn, a London physician; *Tillandsia* for Elias Tillands of Finland; *Vriesea* for DeVriese, a Dutch botanist of Amsterdam; *Quesnelia* probably for E. Quesnel, a French horticulturist.

Other VIPs – Very Important Plantsmen – have been honored by having their names given to various species of Bromeliads. To name a few; Jean Linden (*Tillandsia lindenii*); Charles Pinel (*Aechmea pineliana*); Dr. Richard E. Schultes (*Ae. schultesiana*); Ladislaus Cutak (*Dyckia cutak*); *Aechmea weilbachii, Ochagavia lindleyana* and many others.

Among these "many others" is the name of one who perhaps has done more than any other one person in the United States to promote the knowledge, appreciation and use of Bromeliads. I refer, of course, to Mr. Mulford B. Foster, collector and hybridizer of these beautiful plants, several of which bear his name, and one the name of his wife, Racine. One of his hybrids, *Aechmea* "Foster's Favorite", on November 15, 1949, under Plant Patent No. 898, became the first bromeliad ever to be patented. It was through the efforts of Mr. Foster (*and a few California bromelphiles - Ed.*) that the Bromeliad Society was organized on September 17, 1950. This



STICK INSECT SURPRISE - Oscar Ribeira, a friend from Brazil, sent me a jpg photo of a stick insect with a note that said: "this is the first time I saw a stick insect promenading in my bromeliads. What a good surprise!" This stick insect is clearly a member of the order Phasmatodea, but the genus is not easily identified. A stick insect resembles a twig. It can grow to about 7 inches long. The males have wings and can fly. Stick insects are parthenogenic; they are capable of a form of reproduction in which an unfertilized egg develops into a new individual. I believe that all the stick insects are herbivors, unlike similarly shaped insects like the Praying Mantis.



Unidentified Stick Insect on broms

An accountant by profession, Oscar is a devoted brom collector. He maintains a small bromliad nursery in the suberbs of Brazil called BROMELIARIO IMPERIALIS. His interests are primarily in hohenbergias and alcantareas he finds in arid areas of Brazil. He is noted for finding *Hohenbergia magnispina* (described by Elton Leme) and for his beautiful variegated form of *Alcantarea imperialis*.

TILLANDSIA TENUIFOLIA var. SURAMINENSIS - In an article in the December issue about some tillandsias listed in the new Taxon List (http://botu07.bio.uu.nl/bcg/taxonList.php), I raised a question about the placing of this plant in is an international society, with members and enthusiasts in many foreign countries as well as in America. $\hfill \Box$

synonymy with *Tillandsia tenuifolia v. tenuifolia*. I've grown many pieces of *var. surinamensis* from different sources, and they all had a much longer, thicker inflorescence scape than did *var. tenuifolia*. Many of the inner leaves of *var. suraminens* had a dark mahogany hue. (There is a trade cultivar called *T.* 'Amethyst' with all mahogany leaves that is sold as *var. suraminensis.*)

In his Monograph on *Tillandsioideae*, Lyman Smith indicated that *Tillandsia tenuifolia* was very variable, but still he designated four varieties besides the type var. tenuifolia. In his key, Dr. Smith distinguished var. suraminensis mainly because its long scape far exceeded the leaves. To clarify this issue we would need a habitat study of a large population to see if this character is a random variable or is consistent for many plants. (See photos below of the plant I have been growing as v. suraminensis and the type *T. tenuifolia var. tenuifolia*. Note that the leaves of var. suraminensis are secund as described by Dr. Smith.)



T. tenuifolia v. suraminensis

T. tenuifolia v. tenuifolia

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Dining RoomTable centerpiece Cryptanthus 'Betty Ann Prevatt'

Fine Dining at our Holiday Party

OTHER GREAT HOLIDAY PARTY - On December 19th we partied past 11 pm at the beautiful home of Michael and Francisco who once again generously hosted NYBC's end of the year celebration. And they provided a succulent turkey with sausage stuffing, cranberry-horseradish sauce, salad, guacamole and delicious wines. We also had whitefish salad, baked mushroom pie, penne with vegetables, fruit, cake and coffee. pesto. Unfortunately a number of members missed out due to illness or were out of town. Of course we all spent time inspecting and ogling the great plants growing epiphytically on their famous floor to ceiling cork wall that is lit with fluorescent lights and receives frequent sprays of water from a automatic timer; the water is recirculated by an automatic pump.





Ophioglossum pendulum a very rare, difficult to grow fern that's been flourishing on the wall for 2-1/2 years



Aechmea 'Ensign growing on wall for many years



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-4