

SEMBS

SOUTHEAST MICHIGAN BROMELIAD SOCIETY

AFFILIATE OF BROMELIAD SOCIETY INTERNATIONAL

JANUARY – FEBRUARY 2016

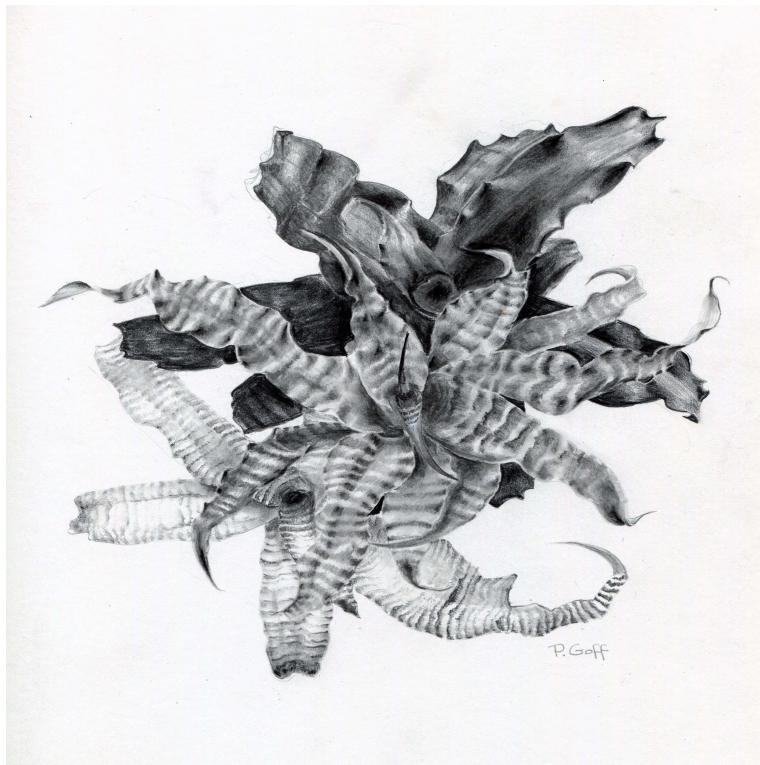


Aechmea brevicollis (brevi= short, collis= neck) Smith 1945,6-12", epiphytic in Colombia, Venezuela, and northern Brazil. Leaf arrangement distichous rather than the typical bromeliad rosette

A Word from the Editor

I wish you all a very fulfilling and successful bromeliad year. I apologize for the delay in getting the newsletter out. Technical problems. I expect to be on track soon. I wish to thank those who contributed articles and pictures last year and urge you all to continue doing so. We *are* interested in how you became acquainted with bromeliads, what adventures you've had growing them (yes, misadventures, too), what your favorites are and why.

We have exciting programs planned, beginning with Paul Wingert's stunning power point presentation on bromeliad habitats. We will again have a workshop at the Cranbrook greenhouse where some years ago we had many productive and fun sessions. And exciting good news: Drew Okla is revamping our website and will be our webmaster. The website will feature an archive of SEMBS newsletters and galleries of photos.



2016 DUES NOW DUE AND PAYABLE

Single \$12

2 or more, 1 address \$15

More than 75 miles from Detroit \$5

N.B. Members who joined midyear 2015 are considered paid up through 2016.

Dues can be paid at the meeting or sent to the treasurer. Make the check out to SEMBS and mail to: SEMBS, PO Box 80472, Rochester, MI 48308



Welcome, new member! Kurt Kleiner

18759 Voiland Street

Roseville, MI 48066-1020

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Catopsis occulta and *Tillandsia streptophylla* -- photo A. Siekkinen



A thriving community of Tillandsias, Orthophytum, and orchids, i.a -- photo A, Siekkinen



Hohenbergias, stressed but blooming amid cactus - photo A. Siekkinen



Blooming orchids (Lady of the Night) with tillandsias - photo A. Siekkinen

March Meeting

The March meeting will be held on Saturday, March 19, 1P.M. At Telly's Greenhouse, 3301 John. R, Troy, will be hosting our society meeting as a public event. Telly's owner-- George Papadelis-- has a rekindled enthusiasm for bromeliads after a recent trip to Florida and visits to a couple of nurseries that specialize in bromeliads. If you have visited the Troy store recently, or the Goldner-Walsh/Telly's in Pontiac, you have seen a far greater variety of bromeliads in stock! Our society will be presenting a plant exhibit from 1-4 P.M. If you have a bromeliad or two in bloom, or some other plants showing nice color, you are encouraged to bring them to display! At 2 P.M., Paul Wingert will give a Power Point presentation featuring photographs of bromeliads growing in habitat. Paul enlisted the help of BSI board member Andy Siekkinen who kindly shared photos from a number of his trips to Mexico, Brazil, and Ecuador. Andy's photos are of highest quality, as good as any on the internet. It will be exciting to see the varied habitats where bromeliads grow naturally. Many of the photos will confirm what you thought you knew about bromeliads in the wild, but some of the habitat shots will defy all preconceptions! Many of the pictures show the "companion" plants such as orchids, aroids, ferns, and cacti that grow with bromeliads, and offer wonderful insight for growing our plants in cultivation. We will highlight these plant relationships, and discuss how that might apply to achieving greater success with growing bromeliads here in Michigan.

As a side note, Andy Siekkinen has a travel business which offers guided tours with a botanical focus, to see plants in habitat. More information can be found at <http://siekkinenar.wix.com/eagleeyeadventures>



Growing Points I *by P. Goff*

Deep in the center of every bromeliad shoot is the future plant: a rosette of tiny leaves which are smaller and smaller toward the center. The center itself, which is covered over by the tiniest leaves, is a mass of cells that are still actively dividing but have not yet become leaf cells. This is the growing point of the bromeliad, also called the meristem. These cells are *undifferentiated*, that is, they have not yet become either leaf cells or inflorescence cells, they could become either. As the cells of the growing point divide, the plant grows higher. Even though bromeliads grow much more slowly than most other plants, some can, over time, develop very lengthy stems. The oldest growth at the bottom of the stem continually dies off as the plant adds new leaves at the top.

When the plant is mature and conditions are right, the cells in the growing point will stop producing leaves: the vegetative phase is over. The cells now start forming a flowering stem or inflorescence. This means of course that the plant will grow no more leaves. (There are a few bromeliads whose vegetation stage is not terminated by flowering because their inflorescences arise from the leaf axils rather than from the central growing point.) Because the growing point has stopped producing leaves it has also stopped producing the growth regulating auxin which prevented the latent growth buds hidden in the leaf axils from growing. One or more of these will now start to grow. In this regard bromeliads vary widely. A few ordinarily produce no pups at all, some begin pupping even before the inflorescence appears, in others it may be weeks or months after blooming before pups appear. The number of pups also varies greatly. Many produce only one pup, others 5 or more. If pups are removed from the mother plant, more pups will soon appear, as long as the mother plant has a few good leaves left. The time required for the pup to mature also varies with genus and species. A few mature in less than a year, others may require several years.

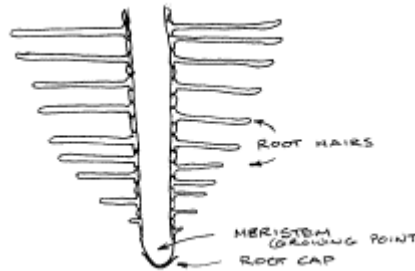
If one wants to hasten the production of pups and is not particularly interested in having the bromeliad bloom, one can remove the inflorescence as soon as it is visible. Or, if the mature plant shows no sign of blooming and one wants to get pups going, one can destroy the growing point. Violence done to the tender tissues at the center of the plant is likely to cause rot which can quickly spread to the entire plant. Making sure that the center remains absolutely dry for several days after the operation is a minimal precaution.

The growing point which produces leaves and the inflorescence is certainly the most interesting growing point of the bromeliad. Less exciting but equally important to the plant are the other two types of growing points: the growing points of the leaves, where they attach to the stem, and the growing points of the roots, located at the root tips.

Growing Points II

Each bromeliad root tip is composed of dividing cells (meristem or growing point) protected by a root cap. As the new cells behind the tip become permanent root cells the tip moves forward. Many of

the new root cells on the surface of the growing root elongate into root hairs through which the root absorbs water and nutrients. As the root hairs die off, the root tip must constantly produce new ones, growing longer in the process.



Growing Points III

The growing points located at the tip or apex of the shoot and the tips of the roots are called “apical.” The third growing point is not really a point or apex like the other two. It is a band of tissue at the base of each developing leaf. Since this meristem tissue is not located in an apex but “inserted” elsewhere in the plant, it is called “intercalary.” This band of meristem tissue produces new cells for leaf growth, pushing the tip of the leaf further and further out until the leaf has reached its full length. At this point cell division stops.

This manner of growth has a definite advantage for a plant with limited resources. If a bromeliad leaf tip is cut off as the leaf develops, the leaf keeps right on growing with no interruption of the plant’s development. By contrast, if the unfurling tip of a bird’s nest fern leaf (frond) is cut off, the leaf stops growing, because the growing point has been removed. The plant must now begin over again with a new leaf. But a leaf is weakest and most vulnerable at the soft growing point area. This is the area which is most easily damaged by toxins, fungus, animal predators.