

Clone preservation project update - Sep 2009

I would like to start by acknowledging some people who have aided the clone preservation project. David Williams of Fort Pierce has a bromeliad collection with several plants that can be traced back to the 1940's. He has already contributed two plants from his collection to the clone preservation project (they are being propagated for distribution). We expect he has other plants of interest for the project and look forward to continued interaction with him. In Sarasota, Linda Sheetz and Helga Tarver have actively supported the project. Linda has already carried out some independent projects in her local society.

Aechmea fasciata and its allies are now blooming or recently past bloom, so it seems like a good time for a review of the group.

First, with respect to taxonomically recognized taxa, *Aechmea fasciata* has 4 recognized varieties (var. *fasciata*, var. *flavivittata*, var. *pruinosa* and var. *purpurea*). *Aechmea dealbata* is not considered to vary enough to warrant the recognition of separate subspecific taxa. In fact, *Ae. dealbata* is very similar to *Ae. fasciata* in appearance. It has a smaller, paler inflorescence and leaves with a pale red-purple to purple tint. The leaf color overlaps the range of colors found in the leaves of *Aechmea fasciata* var. *purpurea*.

Aechmea caesia and *Aechmea flavo-rosea* are distinguished from *Aechmea fasciata* by their shorter bracts and greater separation between the lower branches of the inflorescence. The density of trichomes on their bracts is also less, so the inflorescence appears more orange-red than pink. Growth form of both is more tubular than in *Aechmea fasciata*. Leaves have a large 'fingerprint' at the base of each blade and a scattering of white bars (that do not extend across the entire leaf width) on the lower surface. No subspecific taxa have been proposed for either species. In fact, there is still some question whether the latter two are actually distinct species. They are clearly separated by flower color (*caesia* having blue-violet flowers, *flavo-rosea* having bright yellow flowers), but are otherwise exceedingly similar.

There are a few different clones of *Aechmea dealbata* in cultivation, although none have received official cultivar names as far as I can tell. *Aechmea caesia* seems to be very rare in cultivation, at least in Florida, and presumably represents a single clone. *Aechmea flavo-rosea* is widespread in cultivation, but I am not sure there is more than a single clone available, and know of no cultivar names applied to the species.

Since *Aechmea fasciata* has been grown in large numbers for commercial markets over the course of several decades, several named cultivars have been developed, although

it is surprising how few cultivars have been named. This is partly due to the fairly limited number of variations you could expect from the plant. The leaves are more-or-less covered by trichomes in the wild. Areas of the leaf surface with these trichomes densely packed (to the point of overlapping) appear white or silver when dry. These trichomes may have some banding structure or be evenly spread over the leaves. Under cultivation, the only changes you can expect are variegation, an increase in evenness and density of trichomes or stronger definition of banding, an increase in leaf width or an increase in inflorescence size.

In Europe, the early hybridizers produced many different clones. This can be seen in the pictures in early editions of *Exotica*, and an article by Victoria Padilla (*Bromeliad Society Bulletin* 7(6): 83-84. 1967). Nat DeLeon recalls that every major producer of *Aechmea fasciata* in Europe had a distinct clone. However, they never bothered to assign clone names because they had stable relationships with their customers, and did not need to develop brands. On the other hand, the buyers did not need names because they knew what kind of plant to expect from each grower. Two cultivar names (from the Bromeliad Cultivar Registry) that originated in Europe were Aton and Auslese (although the latter may have been used as a descriptive term rather than a true cultivar name). It is also noteworthy that variegated and albomarginated cultivars were available in Europe early on. These plants likewise never received proper cultivar names.

After growers in the United States began growing large numbers of *Aechmea fasciata*, and the market expanded internationally, branding became common and cultivar names proliferated. *Aechmea* 'Silver King' was a cultivar of *Ae. fasciata* with leaves having a silvery appearance due to uniform trichome coverage. It was the dominant cultivar during the early stages of mass market development. Nat believes this cultivar was developed and named by one of the California growers. It was replaced in the market by the cultivar *Ae.* 'Morgana' from the European grower Corn. Bak. Later, several spineless clones were developed. These now dominate the mass market. The spineless clones include *Ae. fasciata* 'DeLeon', *Ae. fasciata* 'Grey Ghost' and *Ae. fasciata* 'Superb', all developed by Nat DeLeon. The other major spineless clone is *Ae. fasciata* 'Primera' by Corn. Bak. *Ae. fasciata* 'Frost' is a spineless offering from Chester Skotak. More recently, a variegated cultivar of 'Morgana' called *Ae.* 'Lauren' has been developed and patented by Kent's Bromeliad Nursery. Bucking recent trends, this cultivar retains a full set of marginal spines.

There are several clones of *Aechmea fasciata* of interest primarily to collectors. The easiest to identify is *Ae.* 'Ivory', a *fasciata* with white bracts. Two other named cultivars that presumably look the same are 'White Head' and 'White Bouquet'. I

especially hope someone still has one or both of those cultivars so we can compare them directly to 'Ivory'. 'Pink Fasci' and 'Red Fasci' were names use by the early grower and hybridizer Hubble. These presumably refer to clones of *fasciata*, but we could certainly use plants or, at least, pictures to verify this assumption. 'Big Mama' from Herb Hill was conspicuous for its size. 'Checkers' reportedly had a ribbed leaf surface that combined with white bars to form a checkerboard appearance. I see ribbed leaves frequently enough, but can't say I have ever known the trait to pass to a second generation. I hope someone knows the plant and can give us more information. 'Kiwi' reportedly has a consistent red-brown striping on the leaves. 'Sangria' and 'Silver Queen' are cultivars of *Aechmea fasciata* var. *purpurea*. Another cultivar name in *Aechmea fasciata* is 'Leucadia'. I have no information about this plant beyond the name.

As usual, please look at your own collections to see if you have any of the species or cultivars mentioned above. Any information you can share, especially on the plants with unresolved questions, would be very helpful. Better yet, if you can write a review of this group (or any part of it) from a more informed standpoint, I would gladly attach your work to a future update.

Lately, there has been some uncertainty expressed about the future of the bromeliad collection at Selby Botanical Gardens. I have no idea whether the collection is in any danger, but would like to take advantage of the uncertainty to point out that we should never assume any important collection is safe. In the particular case of Selby, a single well-placed major hurricane would obliterate the collection even if it is perfectly safe at this time, so the clone preservation project should have a plan in place to cope with any disaster. We should try to put together a database of all living plants from Selby (with the associated Selby accession number) currently found in private collections. A quick review of my own collection shows I have more than 60 plants with Selby numbers. I undoubtedly have more species, but received them with other collector numbers (primarily BAB and Elton Leme numbers) and have yet to correlate these numbers with Selby numbers. By the way, if you have not been in the habit of keeping such identifying numbers, you need to start.

A very simple set of data for each plant should suffice: Genus, Species, Selby number, Owner, Availability, Privacy. We can correlate Genus and Species with Selby number as a simple check for potential mismatches. The Owner field will allow us to judge how widely cultivated a given plant is. Availability is a voluntary field. Yes means the plant grows well enough that you typically produce an excess over your needs on a regular basis. If you have only had the plant a short time, or haven't examined it in some time, you may not know whether to answer Yes or No. You can

leave to field blank to denote uncertainty. Yes in Privacy means you do not want your ownership of the individual plant made public. We would use these records only in summaries. A copy of the preliminary data from my collection is attached as an example.

Please be sure to include only plants that you originally received with the Selby number in your listings. Do not assume that a plant you received from Selby with the same genus and species as a plant on my list has the same number. Many of the plants distributed by Selby are seedlings, and must be assumed to represent clones different from the parents. Also, do not use my list to correct your plant names. Eventually we should be able to produce a list of verified names corresponding to each Selby number, but, at this point, there could be more than one name associated with some of the Selby numbers.

Once we have some idea how many plants from the Selby collection are already available in collections, we can put together a plan to ensure the plants are grown over a extended geographical area to protect against potential disasters.