

BROMELIANA

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COLOR AND LIGHT IN CRYPTANTHUS ZONATUS CULTIVARS

by Herb Plever

Starting in the 1960s we used to grow the species *Cryptanthus zonatus*. It had alternating silver-white and nearly black bands when I grew it under fluorescent lights. Although most crypts color up better in bright light, this plant grows better in reduced light; in bright light its dark bands tend to turn a reddish or purple color. In fact, this plant grows as a terrestrial in shaded areas, so the contrast between silver-white and black is enhanced by growing it in moderate light.

Like many broms this species is variable. The type species is *Cr. zonatus* v. *zonatus* which is described in the Monograph as being “dark banded” and “densely pale-lepidote beneath”. There are two other forms of *Cr. zonatus*: *forma viridis* with silver and green bands and is green-glabrous beneath, and *forma fuscus* (which means dark, or brown or dusky), but which Dr. Smith’s Monograph describes as being strongly tinged with red. No mention is made about lepidosity in *forma fuscus*. In habitat (if one still exists) it is likely there could be found plants with band color in between the type species and the above forms. The problem with using color as a genetic



Cryptanthus zonatus growing under my fluorescent light unit - the photo was taken 30 years ago

character in identification is that leaf color can be culturally influenced by the amount and kind of light they receive. Thus in strong light the dark banding may turn reddish-brown or red.

It’s unfortunate that *Cryptanthus zonatus* has virtually disappeared from bromel lists and for many years has been unavailable for purchase. However, this species or its *forma fuscus* has been used by

hybridizers to make many fine cultivars. (Neither they nor we can be sure whether it was the species, *forma fuscus* or something in between that was used in a cross.)

Over the years we have bought many cultivars in which some genetic material was contributed by *Cr. zonatus*, but we were frequently disappointed because they did not have really black banding. The first hybrid we found that did have black banding was *Cr. ‘Black Mystic’*, made in 1977 by P. DeCosta. In that plant the black was dramatically dominant and the silver bands were thin and gray. (See photo on page 2.) Its parentage is unknown, though it is clearly related to *Cr. zonatus*. In 1978 Edward Hummel made *Cr. ‘Kamehameha’* (see photo page 2), of unknown

NEXT MEETING - Tuesday, September 1st, 2015 at 7:00 P.M. sharp at the [Ripley-Grier Studios 520 8th Ave. \(between 36th & 37th St\) Room 16M](#)

“**BROMSMATTA**” - A video of the Austroasian Bromeliad Conference in Parramata, Australia last April with photos from Ian Hook and Greg Kiernan (Australia), Graeme Barclay and Gary O’Connell (New Zealand), Pamela Hyatt (California) and Steve Goode (Chicago). We’ll email the booklet of the Conference Proceedings with summaries of the talks (courtesy of Lynn Hudson). Please bring in plants for sale and for Show and Tell.



Cryptanthus 'Black Mystic'



Cryptanthus 'Kamehameha' from BCR



Cryptanthus 'Zonatus Silver' from BCR

parentage (Hummel never revealed this data in any of his hybrids) - but the color and markings indicate to me that *Cr. zonatus* was likely one of the parents.

In 1985 a more frosted, well-banded cultivar appeared with more equal brown/black and silver banding; it was called *Cr. 'Zonatus Silver'*. The hybridizer and its parentage are unknown (see photo above). Note that many of the silver bars are distinctively wavy, not all evenly straight across. These three cultivars have been used to make some fine hybrids; they are beautiful plants in their own right yet none of them are available for purchase in any nursery, while many of the new crypt hybrids are on the nursery lists.

Jim Irvin of Florida has produced a great many beautiful cryptanthus cultivars, including an extensive list of crosses using *zonatus* and its cultivars. From his 1991 cross of *Cr. 'Kamehameha'* x *Cr. 'Zonatus Silver'* he produced *Cr. 'Alternating Current'*, *Cr. 'High Voltage'* (both of which favored 'Kamehameha with indefinite and indistinct banding) and *Cr. 'Circuit Breaker'* which had distinct bands like 'Zonatus Silver'. If grown in reduced light 'Circuit Breaker will have near black and silver banding, but in good light the dark bands will turn quite red (see photos below).

In 1989 John Laroche of Miami crossed *Cr. 'Zonatus Silver'* with an unknown seed parent to produce a brown/black silver barred hybrid he called

'Snowflake Obsidian'. In 1990 Bob Whitman produced a chocolate brown cultivar of 'Zonatus Silver' that he called *Cr. 'Kit Hilbers'*. In 1991 Jim Irvin crossed *Cr. 'Kit Hilbers'* with *Cr. 'Black Mystic'* to make *Cr. 'Sweet Tooth'* (photo below).

In 1991 Jim Irvin produced *Cr. 'Alpine Frost'* (see photo on page 3) by crossing *Cr. 'Cloudcover'* (*Cr. 'Green Star'* x *Cr. fosterianus*) with *Cr. 'Ocean Mist'*. *Cr. 'Green Star'* is a cross of *Cr. 'Glad'* (a *bivitattus* cultivar ?) with *Cr. zonatus*; parentage of 'Ocean Mist' is unknown but it likely has *zonatus* in its genes. Irvin also produced *Cr. 'Alberta'* (*Cr. 'Cloudcover'* x 'Silver Star', unregistered) with both *zonatus* and *fosterianus* genes. It has slate-purple leaves, silver scurfing and silver banding on 2/3 of the leaf and the extreme edges and spines are brick red (from *fosterianus*?).

In 1992 Jim Irvin crossed *Cr. 'Fine Feathers'* with *Cr. 'Zonatus Silver'* to produce *Cryptanthus 'Arrogance'*, 'Audacity' and 'Unabashed' (see photos at the bottom of page 3). *Cr. 'Fine Feathers'* was a hybrid made by Grace Goode of Australia, in which she crossed *Cr. Cherry Frost'* with *Cr. fosterianus*. 'Cherry Frost' is of unknown parentage, but it looks to me like a very red form of *fosterianus*.

Cr. 'Fine Feathers', has a grey background with uniform silver/grey barring (see photo on pg 3), and it is the cultivar Jim Irvin used as the seed parent for both Crypts 'Arrogance', 'Audacity' and



Crypt. 'Alternating Current'
Photo by J. Irvin from BCR



Cryptanthus 'High Voltage'
Photo by J. Irvin from BCR



Cryptanthus 'Circuit Breaker'
Photo by J. Irvin from BCR



Cryptanthus 'Sweet Tooth'
photo by E. Beach, fcbs



Cryptanthus 'Alpine Frost'
photo by J. Irvin, from BCR



Cryptanthus 'Iceberg'
photo by J. Irvin, from BCR



Cryptanthus 'Cosmic Storm'
photo by J. Irvin from BCR



Cryptanthus 'Bone Chiller'
photo by J. Irvin from BCR



Cryptanthus 'Fine Feathers'
photo by G. Goode, from BCR



Cryptanthus 'Frostbite'
photo by J. Irvin from BCR



Cryptanthus 'Arrogance'
photo by J. Irvin fr BCR



Cryptanthus 'Audacity'
photo by J. Irvin fr BCR

for *Cr.* 'Unabashed'.

Also in 1992 Jim Irvin produced *Cr.* 'Iceberg' by crossing *Cr.* 'Zonatus Silver' with *Cr.* 'Ocean Mist' (see photo above). The silver banding comes from the former and the green background comes from 'Ocean Mist'. Another cultivar selected from that same cross is *Cr.* 'Cosmic Storm' (see photo above). In the same year he crossed the species *Cr. zonatus forma fuscus* with *Cr.* 'Ocean Mist' to produce *Cr.* 'Bone Chiller' (see photo above). This cultivar cultivar has very even, straight across banding with little waviness that is uniform on every leaf. The silver bands are much wider than the alternating dark bands.

Another Irvin cultivar that was selected from the same 1992 cross of *Cr. zonatus forma fuscus* x *Cr.* 'Ocean Mist' above is *Cr.* 'Frostbite'. It is shown in the photo above; its specific production date is unknown.

In about 1993 Jim Irvin crossed *Cr.* 'Frostbite' with *Cr.* 'High Voltage' (photo on page 2). *Cr.* 'Chill Factor' was produced from that cross, and I think it is one of the best of Jim's *zonatus* cultivars. Judge for yourself from the photo below. It was in our spring plant order and it recently bloomed.

As with most crypts, I grow it in a 4" pot in reduced light under fluorescent lights in the blue/red end of the spectrum at about 5800° Kelvin. It is placed 7" below the tubes near the terminal end where there is lower lumen output. (The quantity of lumens that hit the plant decreases as the distance from the tubes increases.) At that 7" distance the dark bands stay near black; closer to the tubes, like 3-4" where I grow most Crypts the dark bands will turn red-brown. The photo submitted by Irvin to register the plant on the BCR was likely grown in high light as its background color is red-brown.

In 2000 Jim Irvin crossed *Cr.* 'Silver Star' (a



Cryptanthus 'Chill Factor'



Cryptanthus 'Ice Age'
photo by J. Irvin from BCR

DeCoster hybrid, parents unknown) with *Cr.* 'Zonatus Silver' to produce *Cr.* 'Ice Age' (see photo on pg. 3.)

There's an Australian *zonatus* cultivar called *Cr.* 'Silver Zones' (adjacent) - hybridizer and date are unknown; the pollen parent is *Cr.* 'Zonatus Silver'. In 1990, Richard Lum of



Cryptanthus 'Silver Zones' photo by G. Lawn, from BCR



Cryptanthus 'Northern Lights' photo by C. Richtmyer, BCR

Hawaii produced *Cr.* 'Ebony Beauty' (parentage unknown), but *Cr. zonatus* or one its cultivars was in the mix. In 2007 Carole Richtmyer crossed *Cr.* 'Ebony Beauty' with *Cr.* 'Zonatus Silver' to produce *Cr.* 'Northern Lights', and Stephen Hoppin used 'Ebony Beauty' to produce *Cr.* 'Thriller'.

CHANGE - DO WE NEED IT OR NOT?

by Dudley Reynolds

(Reprinted from the August 2014 Newsletter of the East London Bromeliad Society of South Africa)

As time marches on and more research is done on all subjects, change is inevitable. Do we need change? I know as a person becomes older we become more reluctant to change and we are quite happy with what we know and understand. Now with DNA testing, which has been around for a while and plants being researched with more advanced scientific methods we have already seen change in the bromeliad family. What we knew as 56 genera has already been increased by further development and division.

My keen interest in orchids over the last few years has dwindled slightly due to the massive changes in nomenclature. I just cannot grasp all the new names, what I used to know as has changed so much, my brain is too old to learn new names. Fair enough, orchids are a much bigger family to their neighbourly epiphytes, bromeliads. Do we need change? Of course we do!

What will be the extent of the changes? Well, that remains to be seen and left up to the taxonomists. Maybe our grandchildren who inherit our collections will be speaking a whole new language one day. Food for thought, hey? ☐

(Editor's note - Taxonomic changes from ongoing molecular DNA testing: The current count of sub-families is 8, up from 3. There are now 59 recognized genera, up from 56. It should be noted that changes suggested by molecular research must be generally harmonious with plant morphology - ie, its physical characters - before the change can be accepted.)

Tillandsia edithae



The big clump on the left was grown for 30 years by Jim Wright of San Diego; the photo appeared in the BROMELIAD BLADE, newsletter of SDBS. The clump on the right was grown in my apartment and flowered in 2010. HP

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