

# Petal Tones



National Capital Area Chapter of the Gesneriad Society Newsletter

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*Primulina tamiana* is now *Deinostigma tamiana*

## President's Message

All, travel can be fun. You get to see all sorts of interesting places, meet new people, and learn so many different foods; however, it is also very tiring, exhausting, and loses its fun aspect if done too often.

Drew and I are on our way back from Germany. I've been here two weeks, trying to stay on a diet and avoid gluten. It hasn't been easy. Drew got to see a bit of Europe for his first time ever. All in all a fun trip; however, both of our bags were overweight coming home and we had to stuff lots of stuff into our backpacks and computer bag to bring everything home.

No plants coming home with me this time. But we did see some nice things. I've given Donna a few pictures for Petal Tones.

NCAC meetings are held at BEHNKES NURSERIES  
11300 Baltimore Ave, Beltsville, MD 20705  
Behnkes opens at 8:00am if you would like to browse and shop before the meeting. Gather at 10am to get set up, with the meeting beginning at 10:30am. Meet the second Saturday of the month. \$10 yearly dues.

June 11<sup>th</sup> 2016: Hands on Hybridizing by Jim Roberts  
Plant of the Month: Columnea

July 5 – 9: National Convention in Wilmington, DE

July 30: Summer Picnic at Barry's including the Baltimore African Violet members.

Travel hasn't ended for me however. This week I'm making a one day trip to Milwaukee to give a half hour talk (two 15 minute talks). Then on Sunday I fly to Mexico for three days. I stop in Alabama for two days on the way home and get home around midnight on Friday. And of course, I'm giving the program on Saturday morning!

Please show up! I'll be there unless weather or mechanical issues ruin my plans.

## Program Information:

This month we're having a hands-on hybridizing program. I'll bring some plants, but it would be helpful if some of the group did also. Bring two plants of the same genus (two *Columnea* or two *Kohleria* or two *Aeschynanthus* or two \_\_\_\_\_ (fill in the blank). We'll make actual hybrids on your plants and I'll show you what to do if seed pods form. Hybrid seed can take as little as one month to ripen (some of the rhizomatous plants or mini-*Sinningia*) up to nine months (*Saintpaulia*).

Seed can be contained in hard capsules, soft berries or long capsules (Streps and Primulina). Let's have some fun and create something wonderful that you can name!

Other news & plants:



*Primulina tamiana* is no more. Scientists have determined that *P. tamiana* really belongs to the genus *Deinostigma*. There is one other cultivated plant in this genus being grown in Japan and Vietnam. Seed of *Deinostigma eberhardtii* is on its way to me. It looks very similar to *Deinostigma tamianum* (yes, the species be as easy to propagate.)



There was a large cluster of these at the botanic garden. No ripe seed apparent to fall into my shoes (boo hoo!) and it is probably *Monophyllaea horsfieldii*. Photo: Jim Roberts



*Episcia cupreata*: that's what the name tag said, but it may be closely related to the *Episcia* 'La Solidar' clones. Photo: Jim Roberts



No name tag seen, but looks a lot like *Nautilocalyx melittifolius* or 'Caribbean Pink' Photo: Jim Roberts



Johanna: *Nematanthus* 'Dibley's Gold' was taken at the USBG.



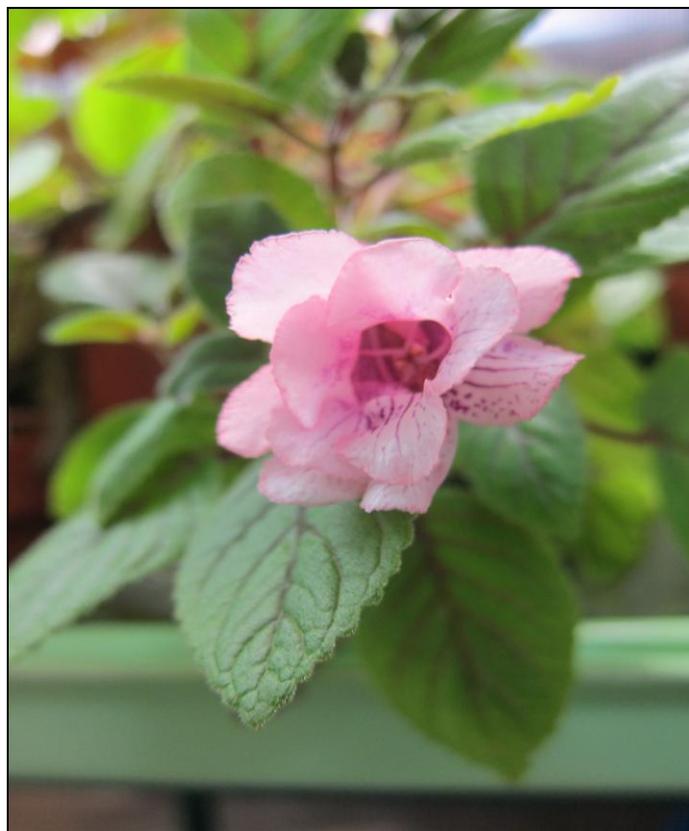
Johanna: *Titanotrichum oldhamii* at the USBG Production Facilities. It is grown in a greenhouse year round. Last winter it had a brief period of dormancy, has grown all spring, and is currently in bloom. My plant in the garden is all of three inches high!



Johanna: *Nautilocalyx lynchii*, but does not appear to be correctly labeled. Any ideas?



Johanna: Close up of *Nematanthus* 'Dibley's Gold' also taken at the USBG.

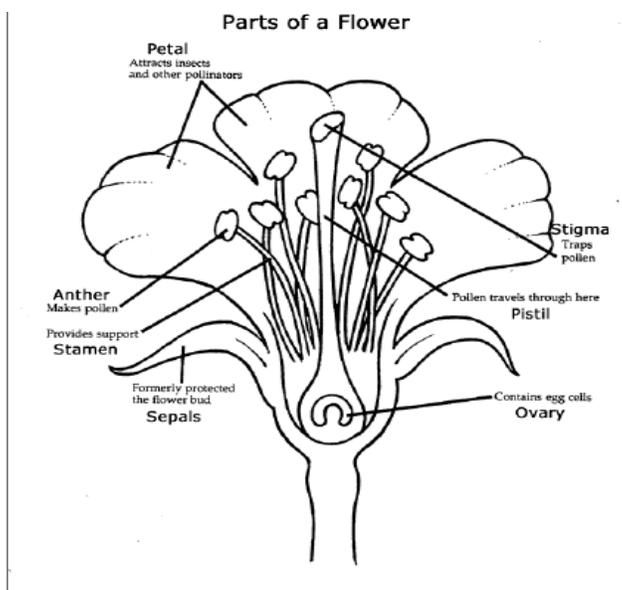


Johanna's *Sinningia* 'Party Dress'

## Pollinating your Gesneriads

By Karyn Cichocki from Gesneriad Tips 'n Trivia, 37(2013)  
No.4, Karyn Cichocki, Editor Reprinted with permission

With a little observation, practice, patience and luck you can successfully pollinate your Gesneriads. Once your plants start blooming, watch the flowers to observe the stages that the flowers go through. When the flower first opens, the pollen is ripe and it is at the “Male” stage of reproduction. This is the time when the pollinator will visit the flower and pick up the pollen, which will be taken to other flowers. After two or three days, the flower will enter the “Female” stage when the stigma is ready to accept pollen. “Female” stage when the stigma is ready to accept pollen. By observing the flowers on your plants you can see them change from one stage to another.



The photo below of an *Achimenes* flower, taken by Dale Martens, shows the stamens, which support the anthers, have retreated back into the flower tube. The pistil, which supports the stigma, is growing toward the face of the flower. So this flower is approaching the “Female” stage.



I think that *Kohleria* flowers are the easiest to tell when the stigma is ready to receive pollen. On many the stigma will actually come out past the face of the flower, the tip is split in two ready to accept pollen. *Sinningia* flowers are also fairly easy to tell when the stigma is ready for pollen. The picture shows the flower in the “Male” stage and the stigma is not visible. The next picture shows that it is past the “Male” stage and is almost at the “Female” stage with the stigma visible.

At this time you should start placing pollen on the stigma. This can be done by either placing pollen on a brush, the tip of your finger or holding the anther with a pair of tweezers and cut it from the flower and dabbing the stigma with the pollen. This should be done each day for at least 3 days. Some flowers, such as *Nematanthus* need to be cut open in order to get to the stigma. If you are hybridizing, you will want to cut the anthers off the flower to avoid self pollination. Some flowers, such as *Sinningia pusilla*, will pollinate themselves prior to the flower opening,



so if you want to hybridize with those types of flowers, you will need to cut the flower open, before it opens and remove the anthers. This requires proper timing and skill so if you want to hybridize with those types of flowers, you will need to cut the flower open, before it opens and remove the anthers.

This requires proper timing and skill so that the stigma is not cut or damaged. Keep an eye on the stigma to watch it change its shape, some split open (*Kohleria*, *Primulina*), others develop a slit indentation (*Sinningia*, *Nematanthus*) when mature. Once pollination is successful you will see the stigma start to shrivel and die back and the ovary at the base of the flower will start to swell. In some plants such as *Nematanthus*, higher humidity is required for successful pollination and/or development of fruit. Once pollination is successful you will see the stigma start to shrivel and die back and the ovary at the base of the flower will start to swell. In some plants such as *Nematanthus*, higher humidity is required for successful pollination and/or development of fruit.



Here is a photo of *Sinningia sulcata*, taken by Mauro Peixoto, showing the different stages. 1. Flower has just opened 2. Flower is in the “Male” stage with the prominent anthers 3. Flower is in the “Female” stage with the stigma extending out past the anthers.



Above are the developing twisted seed pods of *Streptocarpus*.

### Seeing Double - Hybridizing Double Flowering Sinningias

By Corey Wickliffe

Reprinted with permission

It's amazing how an offhand comment can lead off into a host of new ideas to explore. I know exactly when this train of thought started, and it was like being hit by a brick. When explaining my *Sinningia* hybridizing goal of making a micro in any color other than white, lavender, or purple it happened - "Why are you only looking at color? Why not try for other traits too? You know, like doubles." Well... huh. There was absolutely no good reason why not, and even in my evaluation of what hybrids I wanted to



The picture above of *Sinningia piresiana*, shows that after successful pollination the flower stems will raise upward, possibly to keep them out of the way, allowing pollinators to get to the remaining flowers. The picture below shows the developing seed pods on *Primulina linearifolia*.



Calyx double on the left split open, no green calyx, see the fat style? That's deformed. Notice it has filaments with anthers attached. The flower on the right is a double petal. No anther and the style is normal. Photo courtesy Dale Martens.

use in my project a number of doubles showed up on the list. I would not even need to take an extra step (which can actually end up being multiple generations!) if I wanted to add them to the mix. My investigative little brain got rolling and I immediately started hunting down information on doubles - which included chatting with Dale Martens who has been lucky enough to use both traits in her hybrids over



Calyx Double on top with no separate green calyx with petal double on bottom. Photo Dale Martens

the years. She was kind enough to give me the basic run down which I can now pass on to you. Turns out there are multiple doubles - calyx and petal doubles - that you're most likely to come across in the mini to compact sizes (*S. speciosa* hybrids also have a double trait, but since I'm unsure how it relates I've not included it here). While they achieve a look of ruffled heavy flower similar in look of a rose they do it in completely different ways. The differences in how



*Sinningia* 'Gabriel's Horn' with a calyx double with split calyx. Photo by Kyoto Imai

they change a flower also translates over to how you use them in hybridizing - both traits force the plant to only be a seed parent or pollen parent, but which is which depends on which trait the flower has.

### Petal Double

Typically when people are referring to "double" *Sinningia* they are talking about the Petal Double mutation. In this case you see extra petals in the center of the flower, while the outside of the flower is otherwise normal looking.

This was a mutation that evidently showed up in a miniature *Sinningia* hybrid of Treva McDaniel and was named 'Emily'. This hybrid was the parent to the petal double mini sinningias that are still popular today, and this trait is still being hybridized by a number of people including Dale Martens and David Harris (of the "Ozark" series). Having developed in Mini's originally, this mutation is typically found in plants smaller than the Calyx Doubles.

### Calyx Double

A Calyx Double is a whole different kettle of fish. Rather than having the extra petals on the inside, the extra petals are on the outside of the flower. The calyx are typically the leafy green bits that protect the bud as it forms and is where the flower attaches to the stem, but in the case of this mutation they are actually mutated into additional petals.

This mutation originated in *Sinningia cardinalis* and started out as strap-like extensions of the calyx around the tube of the flower. You can still see this in hybrids such as the ever popular 'Gabriel's Horn'. Due to the species background of these plants they tend to be larger/compact and are not miniature in size.



*Sinningia* 'Heartland's Double Dilly' a petal double hybrid grown by Tim Tuttle photo by Kyoto Imai

Evidently the strap-like extensions was not attractive to everyone, so a current goal of hybridizers is to

have joined calyxes which results in a "hose-in-hose" look to the flowers. This can be seen on Dale Marten' hybrid *Sinningia* 'Playful Porpoise' - a very popular hybrid parent. This trait has been passed on by hybridizers such as Thad Scaggs (with hybrids such as *Sinningia* 'Diva' and *Sinningia* 'Party Dress') as well as gaining popularity in Asia through hybridizers such as Vivian Liu (hybridizer of the only yellow calyx double - 'An's Nyx').



*Sinningia* 'Danielle' grown and photographed by Kyoto Imai

The Calyx Double mutation seems like it shouldn't influence the reproductive ability of the plant but it does - the ovaries on these plants seem to be deformed. Some are obviously so, while in at least one recent hybrid ('An's Nyx') the ovaries don't look deformed, but setting seed on this plant hasn't happened yet as far as we know, despite attempts. It is unknown if the ovaries are causing the issue, or maybe it is just a genetic incompatibility in the hybrid given its complex species history. Ah, the joys of complex hybrids! Thankfully they seem to have a good amount of pollen, and barring any complex genetic issues they can still be used for hybridizing. The trait also seems to be pretty strong and up around 50% of the seedlings may be calyx doubles! Just remember if you have a developing seed pod to remove the flower yourself - because of the modified calyx the flower does not fall off on its own and typically has to be removed by hand. Time to go find some doubles and splash around some pollen!

*A big thanks goes out to Dale Martens for sharing this information, providing photos, and mentoring me on my Sinningia hybridizing travels.*



*Sinningia* 'An's Nyx'

## Hybridizing with the Doubles

Now that we can tell the differences, what's stopping us from having doubles of everything? I can't help but look at my micros and want to start crossing them with a few petal and calyx doubles just to see what happens... but what do I need to know to be successful? It goes back to both not having all their reproductive parts working - and the key is to remember which is which.

The Petal Double mutation is taking the male flower parts and turning them into petals. While you get a corolla tube full of petals you don't get pollen, so a Petal Double can only be a seed parent. Since nothing is every easy the catch to this method is that this trait doesn't seem to be particularly strong - the first generation of a cross may result in few, if any, doubles. Crossing that generation to get a second generation from that cross seems to increase the rate they show up, so keep crossing and keep hoping!

## A Unique Use for Gesneriads and Friends! Andrew Norris

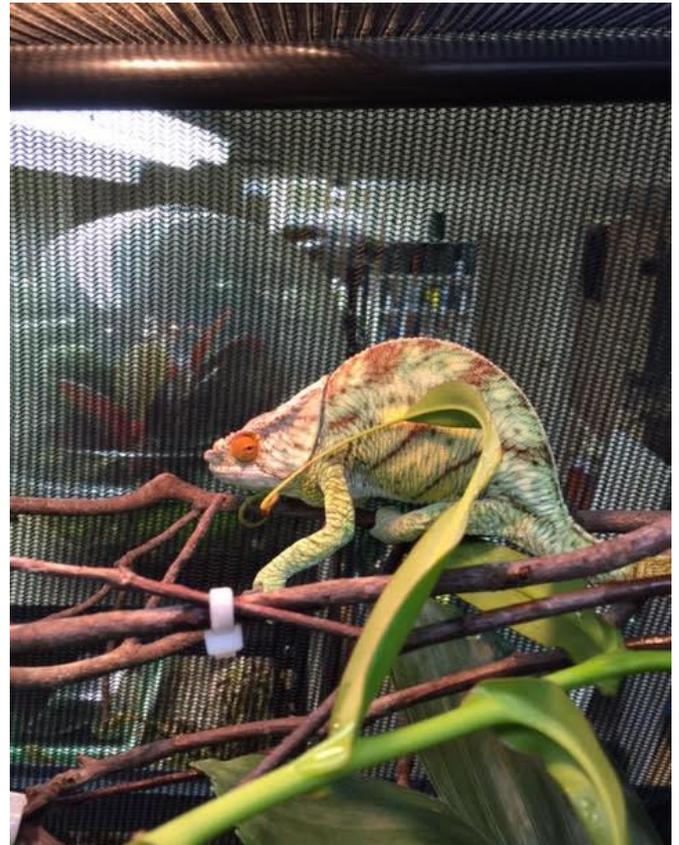


This Chameleon enclosure is 8' x 4' x 6'10" except where the ductwork drops down and that is 6' tall and includes some gesneriads and begonias, though it was intended to include more. Time and necessity



dictated the current planting scheme. This is relevant to our newsletter, because, one could build a similar structure for growing tall or hanging gesneriads, indoors, without a greenhouse.

In my case, the enclosure houses a pair of the largest by weight, chameleon species, *Calumma parsonii*. I breed tropical, giant cockroaches for the chameleons and order silkworms, hornworms, and blue bottle flies, which they love. These are juveniles and will be



3 times their current length and about 6 times their current weight. They can live up to 20 years and are fairly rare, being a very coveted and expensive species in captivity. They originate from Eastern Madagascar.



Donna's *Amalophyllon* seedling blooming now

## Bylaws Committee Report

The Bylaws Committee has a list of items to discuss for possible amendments to the Bylaws based on feedback from members in the club. Due to the number of items on the list, the Committee has decided to meet each month for half an hour after the regular club meeting to discuss some of the items on the list. Members are welcome to attend and participate in the discussion.

Jim Roberts has sent via e-mail a copy of the current Bylaws to everyone on the membership list. If you did not get a copy or need another one, feel free to ask for another copy from any club member. At the next meeting, the Bylaws committee will discuss the clarification of wording under Article 2, Section 4 and Article III Sections 1 and 2. If time permits, we may also start discussion about Standing Committees under Section 3.

The Bylaws Committee met last month after the regular meeting and is proposing the following amendment regarding classes of membership:

### **Proposed amendment to Bylaws**

#### Article II. Membership and Dues

##### -Section 2. Classes of Membership

##### **Current wording:**

*There shall be three classes of membership: Individual, Family, and Honorary. A Family membership shall cover two people residing in the same household who shall be entitled to two votes. Honorary memberships, with full membership rights, may be granted upon recommendation of the Board of Directors and a vote of approval by the membership.*

##### **Proposal:**

**There shall be two classes of membership: Individual and Honorary.**

**Honorary memberships, with full membership rights, may be granted upon recommendation by the Board of Directors and a majority approval by the members in attendance at a chapter meeting.**

Any member may propose honorary membership for another current or former member. A written statement as to why that person should be granted honorary status must be submitted to any Board member, who shall promptly notify the rest of the Board. The Board will vote on the proposal within 30 days, publish the proposal in the next issue of Petal Tones, and present the proposal for a membership vote at the following chapter meeting.

**Note from the Editor:** To encourage members to contribute content to our Petal Tones newsletter the following incentives have been approved.

- 5 raffle tickets with 3 month expiration will be given to each member who submits an article with 3-5 paragraphs in length on a specific topic.
- 3 tickets with a 3 month expiration will be given to each member who submits 5 pictures
- \$25 gift certificate of the winner's choosing will be given for best article of the year
- \$10 gift certificate will be given for best photo of the year, to be voted on at the end of the year.

Also I would be glad to "clean up" any photographs before publishing in Petal Tones if you would like. Please share you experiences with your plants in a short article, or a visit to a green house or to another plant lover's collection. You'd be surprised how other folks will enjoy reading about your experiences! Thanks, Donna

### **NCAC Meeting Program Schedule for 2016**

July 2016: Summer picnic tentative 7/30/16 Barry's.

July 5-9, 2016: National Convention Wilmington, DE

August 2016: Hands on Terrarium Workshop, with materials provided to set up and maintain a small terrarium Gesneriad. Each member should bring a container of their choice to make a terrarium. Presenter: Johanna Zinn

September 2016: Episcias: Varieties, Culture, and botanical History, presented by Drew Norris

October 2016: Karyn Cichocki will discuss her Gesneriad Collecting Trip to Ecuador. Nominating panel for election of new officers will be determined.

November 2016: Meeting at the Mid-Atlantic African Violet Show with Jim Roberts and Drew Norris discussing setting up grow light stands.

December 2016: Holiday Party  
New officers are elected

January 2017: MAAVS Slide Show and discussion,  
Presenter to be determined.  
New Officer Installation

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