
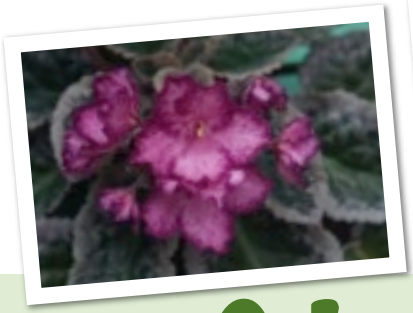
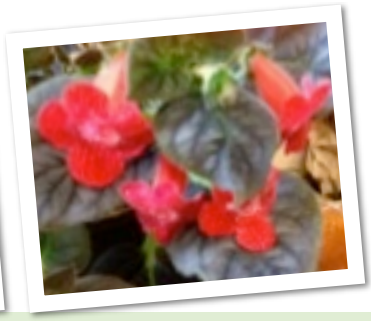
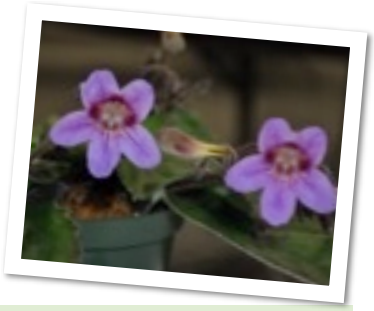

Gleanings

a monthly newsletter from The Gesneriad Society, Inc.

(articles and photos selected from chapter newsletters,
our journal ***Gesneriads***, and original sources)

Volume 6, Number 3 March 2015

Welcome to the latest issue of **Gleanings**! This issue includes photos of John and Doris Brownlie's growing area, Ryan Ferre's account of growing streptocarpus with fifth graders, Jay Sespico's experience with growing *Gesneria* 'Ako Cardinal Flight', and information about the 2014 Gesneriad Society Convention DVD.

Hope you enjoy **Gleanings**!

Mel Grice, Editor

Jacquie Eisenhut of Torrance, California, USA sent this photo of *Sinningia speciosa* 'Cabo Frio'. She said, "The plant kept putting up new growth and was constantly in bloom from June until after Christmas. So it is definitely a keeper for me."

Note: The 2Q, 2015 issue of ***Gesneriads*** includes an article by David Zaitlin about this and other wild collections of *Sinningia speciosa.*

A Visit to John and Doris Brownlie's Growing Area

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Mississauga, Ontario, Canada

Doris and John Brownlie in their basement growing area

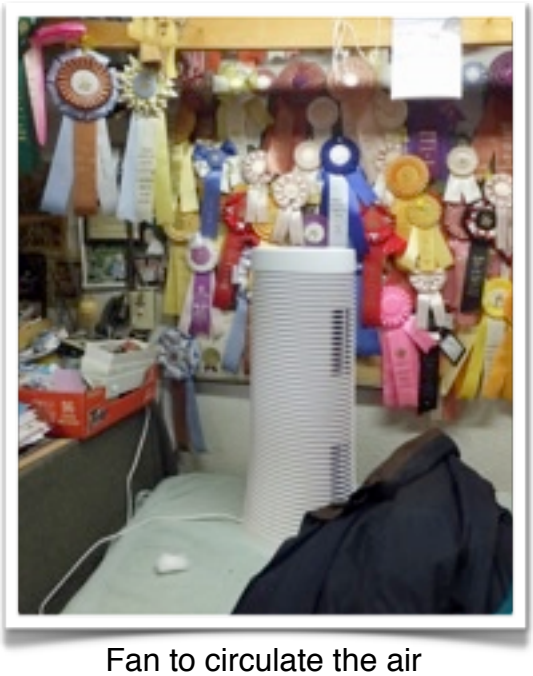
Mel Grice photos

Doris is shown using a hose to water each saucer by hand. Any excess water not absorbed is dumped off. Some saucers sit on top of egg crate with water below and some sit on top of fine aquarium gravel.

Mel Grice photos

Propagating new plants

John is hybridizing African violets again.



Fan to circulate the air

Supplies ready when needed

Mel Grice photos

One Small Strep for Education, One Giant Leaf for Plant Kind

Ryan Ferre ryan.hosta@gmail.com
Eagle Mountain, Utah, USA

You should have seen the looks on the faces of some fifth graders when I first introduced them to "plant breeding." The thought of creating their own hybrid set their imaginations on fire. In Utah, the curriculum for fifth graders includes "Using supporting evidence, show that traits are transferred from a parent organism to its offspring." In the past couple of years I had my students hybridize arabidopsis plants. These were fun but not nearly as stunning as this year's project, the genus *Streptocarpus*.

During the summer of 2013, I realized that if we began the school year with flowering streptocarpus plants, we could begin hybridizing right away. Then we could harvest the seeds in the winter and grow some of the resulting plants to give as Mother's Day gifts in May of 2014. We are on track and happy about our progress so far. It is now April, and we have many seedlings that are just starting to show signs of flower production.

I chose plants with easy traits to identify including flower colors, double flowers, fantasy flowers, variegation, petal margins, etc. We studied the inheritance of the coat color on Labrador dogs to further understand this similar example of epistasis and how it applies to streptocarpus flower color. When the plants begin to bloom, the students will be able to identify dominant and recessive traits, and characteristics that are determined by more complex sets of genes. We already have our predictions for our hybrids based upon these sometimes perplexing principles of inheritance. My students have read a few emails from Jeff Smith and Dale Martens on this project. We applaud them for their knowledge and helping us to deepen our understanding of our project.

So far multiple classes had hands-on experiences with the pollination and labeling of the flowers. We did a simple strategy to keep track of our crosses. We taped a different color of string to each pot. When a cross was made, we tied that string around the flower to represent the pollen parent. We watched as some amazing "twisted fruits" reached maturity around December. We acquired seeds of *Streptocarpus* 'Cape Cool' in November to practice growing seeds before our own seeds are ready. In addition to that, more than 150 students cut and propagated streptocarpus plants by leaf cutting using multiple techniques.

How did we teach so many students how to do this? One of my students stated, "My favorite part of this project was when we got to show other classes how to move one plant to another pot. It was fun showing them because it's nice to share this super fun project with other classes. I loved seeing their reactions when they learned how to repot the plant." A few students were taught in a small group how to pollinate and propagate. Those students then taught the next few students, and so forth until most fifth grade students at our school had the opportunity of being both student and teacher. Now, students are taking responsibility to water and care for nearly 2,000 of their own hybrids.

Did we learn that "traits are transferred from a parent organism to its offspring?" I sure hope so. It goes without saying that many of these students have caught the "strep bug." If there is one thing that we can all learn from this, it is that we should never underestimate the abilities of ten- and eleven-year-olds.

Next year, I plan on taking this process one step further. Using the Gesneriad Society Seed Fund, we will allow the students to explore some species of *Streptocarpus* and let them make planned crosses based on their traits that are not seen in modern hybrids. I

couldn't have done this without the support of other growers who have donated plants, expertise, and encouragement. For that we are truly grateful.

A few more quotes from the students:

"I think that my least favorite part was when we had to transplant all the seedlings. There were a lot of steps and it took forever. The only time I liked it was when we did the assembly line."

"We had a few favorite parts about this project. one of which is we loved planting the plants and watching them grow. The second one is we liked crossing them and can't wait to see what they turn up as. Lastly was the anticipation of waiting for them to grow."

"The 'grandchildren' of the original plants would have some traits that were not in their 'parents' or 'grandparents.' This is simply because of recessive genes."

"I learned how to hybridize, clone, and pollinate streptocarpus, plus much, much more. It was fun doing everything, except watering them, it gets really annoying watering hundreds of plants."

Ryan Ferre teaches fifth grade at Saratoga Shores Elementary School in Saratoga Springs, Utah. He is a member of The Gesneriad Society and grows African violets, streptocarpus, episcias, primulinas, and kohlerias. He is affectionately called "Plant Nerd" by many, including his own students.

This article appeared originally in ***Gesneriads*** Vol. 64, No. 3, Third Quarter 2014, Peter Shalit, editor. Read other interesting articles like this about gesneriads by becoming a member of The Gesneriad Society and receiving our quarterly 56-page journal.

Photos courtesy of Ryan Ferre

Growing Boldly and Loving It!

(or How I Grew Gesneria 'Ako Cardinal Flight')

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Valrico, Florida, USA

I really don't remember when I got my first plant of *Gesneria* 'Ako Cardinal Flight' or from where I got it, but when I saw how profusely it bloomed and that the flowers were my favorite color (orange) it was love at first sight. *Gesneria* 'Ako Cardinal Flight' was the first gesneria that I had in my collection and it was a good thing, because I did everything wrong and the plant loved me right back.

First of all, I put the plant in my soil mix which is roughly equal parts of perlite, vermiculite, and rock wool grow cubes. I didn't know it at the time, but the rock wool contained a lot of lime and that is just what gesnerias love to grow in. I didn't have to add dolomite lime to the soil as some of the more experienced growers do.

Next, I wicked it with a hefty strand of 4-ply acrylic yarn and mixed the maximum amount of fertilizer into the water at a rate of 1/4 tsp per gallon. For a more delicate plant this would have been tantamount to loving it to death, but *Gesneria* 'Ako Cardinal Flight' thrived. It ate like an adolescent teenager and drank like a thirsty fish. I kept taking cuttings of the plant to share with friends and for plant sales, and the more I snipped it the more it bushed out into a very pleasing shape.

Paul Susi photo

Then I put the poor thing under too much light. I grow 'Ako' in high light, under four T8 fluorescent lamps about 18 inches from the light fixture. The leaves stopped reaching for the light and grew flat and developed wonderfully quilted leaves with an irresistible sheen. I kept the lights on for 12 hours a day; after all I wanted the plant to bloom, but I needn't have worried.

Another fortunate cultural boon was my aging and inefficient central air-conditioning unit. In my house even in the throes of the Florida summer when the unit runs continually the humidity in my house remains about 60%. I'm not complaining; the humidity is great for the plants, but towards summer I get very cowardly about opening the envelope of the electric bill.

I highly recommend *Gesneria* 'Ako Cardinal Flight' for anyone who would like to start growing this genus. It is very hardy and vigorous and is not the delicate ephemeral plant you might think it is. When you get the cultural conditions right, it blooms profusely. It has warmed the hearts of plant guests who have visited my home and will warm yours, too. Sometimes doing everything wrong can pay dividends, so don't be afraid to grow boldly.

Reprinted from ***Gesneriad Greetings***, the newsletter of the Tampa Bay Chapter of The Gesneriad Society, February 2015, Jeanne Katzenstein and Marian Yeager, co-editors.

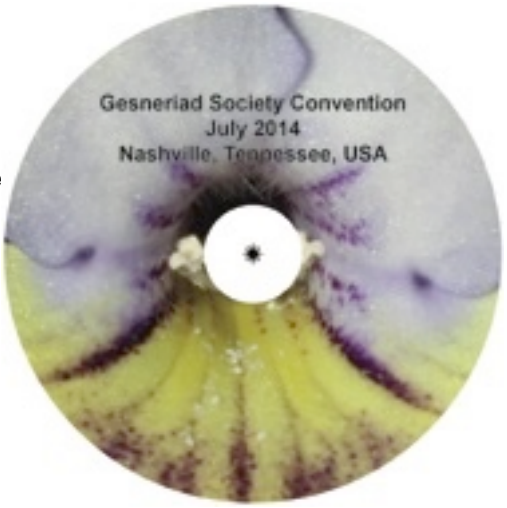
*Note from co-editor JK – Since one of the parents of this hybrid (made over a decade ago by Toshijiro Okuto in Japan) was recently transferred from *Gesneria rupincola* to *Rhytidophyllum rupincola*, there is now a new intergeneric name for this hybrid: x*Rhytidoneria* 'Ako Cardinal Flight'.

The 2014 Convention DVD contains 11 PowerPoint and 2 PDF Presentations

* Why Most *Paradrymonia* and *Nautilocalyx* Species Must Change their Names by Marcela Mora
* Sharing My Methods of Propagating Gesneriads by Mel Grice
* Gesneriads at the Atlanta Botanical Garden by Michael Wenzel
* Vietnam and Gesneriads – Mystery Upon Mystery by Wen Fang
* Diversity and Conservation of the Family Gesneriaceae in Colombia by student Laura Clavijo
* Floral Ecology of *Primulina* by student Hong Xin
* Species Delimitation of *Gesneria viridiflora* and Haitian Gesneriads by student François Lambert
* Resolving generic boundaries of *Rhytidophyllum* and *Gesneria*: a Molecular Phylogeny of Caribbean Gesnerieae by student Reece Watson
*GHA: New Hybrid Introductions by Dale Martens
* Gesneritrek 2014 – More Than Enough Gesneriads (including videos) by Paul Susi
* Gesneriad Conservation Center of China 2013/2014 Work Report by Wen Fang
* Flower Show I by Julie Mavity-Hudson and the Photography Committee
* Flower Show II by Jeanne Katzenstein, Mel Grice, and the Photography Committee
* People and Events by Jeanne Katzenstein and the Photography Committee

Plus:

* 9 Flower Show (plus 2 other) Videos by Peter Shalit
* Hundreds of high-resolution images of plants and people
* PDF copies of all four 2014 issues of *Gesneriads*



Order your copy today at
http://shop.gesneriadsociety.org/collections/cd-dvd-roms

From the editor –

I had a wonderful time visiting with old and new friends in Tampa last month. Thanks to everyone there who made my visit so memorable! The weather was cooler than normal for Florida, but I still say that it was a lot warmer than Ohio at this time of year. I can't wait until spring!

If you have suggestions, comments, or items for possible inclusion in future issues, please feel free to contact me at melsgrice@earthlink.net

Mel

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Paul Susi, Development Chairperson
2 Rushmore Street, South Huntington, NY 11746
For additional information, contact: <development@gesneriadsociety.org>.

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