



Petal Tones

The newsletter of the National Capital Area Chapter of
The Gesneriad Society

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Message from the Convention Co-Chair

We've only just finished the 2008 Gesneriad Society Convention in Denver and we're hard at work on the 2009 Convention here in the National Capital Area. As you can see, we have a logo for the 2009 Convention, combining our chapter logo with the 2009 Convention theme: Gems of the National Capital Area. As we welcome Gesneriad Society members from across the country and around the world, we want to introduce them to the gems, hidden and otherwise, that await visitors in and around our nation's Capital.

We'll be hosting the convention at the Hilton Silver Spring, just blocks from the Silver Spring Metro Center in Maryland, just north of Washington, D.C. The hotel is located at 8727 Colesville Road in the newly revitalized Silver Spring Downtown area. If you haven't been to Silver Spring in a while, check out what's available there at www.silverspringdowntown.com. The hotel is convenient to the Silver Spring Metro stop on the Red Line. We'll be looking for suggestions for places that Convention attendees may want to see, particularly those that can be reached by subway. Bring ideas to our September meeting.



GEMS
of the
National Capital Area

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Next Meeting

At our next meeting, we will also have a program on **growing Streptocarpus** by Brian Connor. Streptocarpus is also the **Plant of the Month**, so if you have a favorite Streptocarpus (or two or more), please bring it with you for a show and tell.



Streptocarpus 'Bristol's Party Boy' and 'Texas Hot Chili'

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Upcoming Events:

Next Meetings at 10:30 am, at the National Arboretum, Washington, D.C:

Sept. 13, 2008: *Growing Streptocarpus*,
discussion on 2009 Convention arrangements

Oct 11, 2008: *Dog Show* (details tba); slides from
2008 Denver Convention

...Convention continued from page 1

Our chapter will be responsible for the Host Chapter reception on Wednesday, July 1, organizing the trips on Thursday, July 2, and the final event on Saturday, July 4. Mike Cagley, Special Events Chair, has been working on the Thursday and Saturday events. We should have details by our September meeting.

Ron Myhr of Toronto, our Speakers Chair, has put together a great line-up of speakers:

- Silvana Marten-Rodriguez has recently completed her dissertation on pollination in Caribbean gesneriads, and will be taking up a post-doc appointment at the Smithsonian this year. She will be showing what Larry Skog describes as "some amazing videos of hummingbirds and bats visiting plants."
- Mauro Peixoto, who supplies our Chapter with seeds from Brazil, will be talking about *Sinningia*, with a focus on recent collections and on some taxonomic developments.
- Tim Tuttle and Peter Shalit will be doing genus presentations on, respectively, *Petrocosmea* and *Chirita*. These talks will address the species and taxonomy of the genera, as well as culture and recent progress in hybridization.

The exact order of their presentations hasn't been worked out yet, but they will be on Friday afternoon and Saturday morning.

Jim Roberts is chairing the Flower Show and Carol Hammelink is chairing the Plant Sale. Both were able to shadow their opposite numbers at the Denver Convention.

We'll be discussing the final arrangements for the 2009 Convention at our September 13 meeting and describing what we learned from this year's Convention in Denver.

See you then,

Nell

Gesneriads at the U.S. Botanic Garden

<http://www.usbg.gov/>

Now that we are looking forward to the 2009 Convention and our out-of-town readership is increasing, we will be running a few short pieces on points of interest in the area.

The U.S. Botanic Garden is located in the middle of DC, right by the Capitol. The Conservatory reopened after a four-year renovation in December of 2001 – here it is on a dreary January day in 2006:



Across Independence Avenue is Bartholdi Park, created in 1932. The National Garden – shown under construction in the photograph above – opened in October of 2006. The photograph below was taken soon after the Garden opened, looking SW through part of the National Garden towards the National Museum of the American Indian. The building to the left is the Dept. of Health and Human Services. By 2009, the plantings should be fairly well established.



And what gesneriads might you see at the USBG? There are regularly a few on display, such as....

Sinningia hybrids planted among the roots of *Anthurium eggersii*.



More miniature Sinningias on a ledge:



Aeschynanthus speciosus.



And upstairs along the walkway:



(no, no gesneriads in this photo)



are some of the epiphytes like *Nematanthus Tropicana*:



Lysionotus pauciflorus.



and another *Aeschynanthus*:



The upstairs walkway is a delight for any epiphyte enthusiast, where the collection includes various species and hybrids of hoya, dischidia, begonia, bromeliads and orchids. It's also an opportunity to see the flowers of the African Tulip Tree (*Spathodea campanulata*) up close:



*** Wish Lists ***

Mark Zukaitis:
Gloxinia 'Dragonsong'
Sinningia braziliensis
Kohleria warszewiczii

Growing in Leca Stones

by Jim Roberts



Many of you have probably heard of Leca Stones, and many have probably also heard that I'm in the process of converting my collection over to this method of growing. Those who attended the meeting at my house on August 2 saw some of the plants that have been converted over. But most of you probably don't understand what the method is or why it works.

What are the number one and two reasons for losing plants in your collection? In my case it was 1) the plant wick dried out and I didn't notice until the plant was so dried out that I couldn't get it to recover and 2) the soilless mix had broken down to the point that the roots weren't getting any air and the plant drowned in its own mud.

Leca helps eliminate both issues.

Let's think about how and where most Gesneriads grow. You've heard the term epiphyte before. And you've read descriptions on where plants were collected. How many trees have soilless mix pasted to the bark? How many rock cliffs have pockets of soil to anchor the roots? How do plants grow with their roots submerged in water next to a waterfall?

Leca stones are hard, fired clay pellets ranging in size from about 1/4" to a 1/2" in diameter. They're not perfectly round, but have bumps and things which make them look more like natural stone. They are very porous and can hold large amounts of water. When placed in a tray with 1/2" to 3/4" of water, the water wicks up through the stones so that even the stones at the top of the pot will contain moisture.

But this is the special part: The air spaces between the stones are very high in humidity.

You've all seen air roots. These are the roots that grow out of the stems and fill up the air space in a closed terrarium. Not pretty, but they can suck quite a bit of moisture out of the air. I really think that this is exactly what's going on when you grow plants in Leca Stones. The air spaces between the stones are high in humidity and the roots fill up these spaces and grow. The roots also get a lot of air, so that even though the plants are sitting in trays or dishes of water, they don't drown.

The roots tend to find a level in the pot that works best for the type of plant you are growing. I've had cactus and Gesneria growing the same tray of water. The roots on the Gesneria come through the bottom of the pot into the tray of water, and the cactus roots stay very close to the surface of the pot. But both have thrived.

There are a few tricks to growing in stones. The first is getting your plants into the stones. You can't just take a plant out of its pot, throw it into a new pot and surround the root-ball with stones. The roots in the soilless mix will rot. You have to wash off as much of the old soil as possible. There won't be much of a root system left, and that's really okay since the plant will be putting out a completely new type of root system anyway.



Put a layer or two of stones in the bottom of the pot and then (and this is where having three or four hands would be a definite advantage) hold the plant at the level in the pot that you want it and pour stones around the root ball. Most of the roots will be

concentrated in a narrow area, but that's okay. These roots will all go away and be replaced by the air/water roots.

After you've filled the pot you may notice that the plant is not centered in the pot, or is too high in the pot. Hold your fingers over the top of the pot and gently shake the pot while repositioning the plant with your other two hands (??). Seriously, it takes a bit of coordination but you can move the plant around by shaking the stones and moving at the same time.

Cuttings, too, can be started directly in stones. Start with a layer or two of stones in the bottom of the pot and position the cuttings in the pot, holding them between your fingers to keep them spread around in the pot. Fill with stones. You can't simply push cuttings into a pot filled with stones. The stones don't move that easily. Once you have the cuttings in the pot you can use the shake and reposition method described above. I generally keep the water level a little higher in trays with cuttings for the first few weeks.

Care of plants in Leca couldn't be easier. If you're already growing on wicks, just grow in the same open trays of water. The pot sits directly in the tray, so you can get rid of the plastic egg-crating or margarine tubs or whatever else you used to suspend the plants above the water reservoir.

Feed lightly. Gesneriads are not heavy feeders, and too much food will result in fertilizer build-up on the tops of the stones at the surface of the pot. This is easily remedied by replacing the stones at the top of the pot with fresh ones just before a show. Since there is nothing to stick to the leaves on a plant, you don't have to worry about brushing soil or perlite off the leaves of show plants that have been freshly repotted.

When the plant gets top-heavy or the plant just looks too big for its pot, lift the entire root ball (stones and all will form a solid mass) and place it in a new pot. Fill with new stones. The stones don't degrade. Ever. So you don't have to worry about repotting every three to six months. If a plant dies, wash the stones off and they're ready for a new plant.

There are a couple of other questions that I've had over the years about this growing method. For example, what about tuberous plants that don't want to be wet all the time? No problem. As long as the tuber is not too deep in the pot it will send its roots down into the water and send out great top growth. However, as the tuber expands it can not compress the soil around it like it does in a soilless mix. Many a green plastic pot has taken on a deformed round shape with lots of bumps projecting through the side. Cut the pot away if you have to and put the tuber in a bigger pot.

Will rhizomes form in Leca Stones? Absolutely! When the top growth shows signs of wanting to go dormant, start keeping the water level a little lower. You can even let the trays or dishes dry between waterings. The rhizomes will form between the stones. No need to dig them out either. Just put the pot and stones aside and when you're ready to bring it out of dormancy, put it in a dish of water, or just place it back into a community tray with the other plants. Remember, the stones last forever.

What happens if the trays go dry? Will the plants all die? This is the big reason I like stones better than soilless mix and wicks. If the trays go dry just add more water. The wicking action of the stones will start immediately. No need to re-wet wicks to start the capillary action. And the stones themselves hold a lot of water, so even though the tray has gone dry, the plants themselves will be fine for a week or more without the water feed at the bottom.

Are plants grown in stones accepted by judges in shows? YES! Although it has been a long time, I won Best In Show at the National Convention in Baltimore in 1991 with a plant grown in Leca Stones. When I first started showing plants I got some strange comments like "nice top dressing." But judges have no problems with the stones as long as they're clean. (Remember the tip that you can replace the top layer of stones without having any effect on the plant?)

Finally, where can I get them? They are available at some orchid supply houses, and I used to get them at Valley View Farms, North of Baltimore. But for me the easiest way is to order them over the internet. Crop King in Ohio sells 50 liter bags for \$20 (plus \$30 for shipping). Since the stones don't compress,

a bag can take care of quite a few plants. Here's a link: http://www.cropking.com/pages/Growing_Media/LEC1004.shtml

Step by Step Guide to Leca

1.



Gesneria 'Yellow Bird'

2.



G. 'Yellow Bird' root ball

3.



Washing off the roots

4.



The Naked Roots

5.



Stones in bottom of pot

6.



Centering the plant in the pot

7.



Adding stones to pot until full

8.



Finished repotting

National Capital Area Chapter (NCAC), a chapter of the Gesneriad Society, Inc. "The purpose of the chapter shall be to afford a convenient and beneficial association of persons interested in gesneriads; to stimulate a widespread interest in the identification, correct nomenclature, culture, and propagation of gesneriads; and to encourage the origination and introduction of new cultivars." (NCAC bylaws, revised April 1981.)

NCAC usually meets four times a year, September through June, at 10:30 am on the second Saturday of the month. All are welcome. Please refer to the latest issue of *Petal Tones*, or contact our chapter president (Carol Hamelink) or publicity and membership chair (John Boggan) for more information.

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