



Gleanings

a monthly newsletter from The Gesneriad Society, Inc.

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

Volume 5, Number 2

February 2014

Welcome to the latest issue of **Gleanings**! This issue includes photos of Chinese gesneriads from Stephen Maciejewski and Dale Martens' thoughts on growing *Streptocarpus*.

Hope you enjoy **Gleanings**!

Mel Grice, Editor



Hung Nguyen of San Jose, California sent these photos of *Pachycaulos nummularia*. We learned at the last Gesneriad Society convention that this plant, formerly called *Neomortonia nummularia*, should now be called *Pachycaulos nummularia* (see <http://www.tropicos.org/Name/100388855>).



Chinese Gesneriads

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Hemiboea subcapitata var. *pterocaulis*



Chiritopsis bipinnatifida



Primulina longii

Grows on cliffs, in limestone hills or in caves. Listed as endangered. Extinction was predicted but more populations were discovered.

All photos courtesy of
Stephen Maciejewski

Primulina shouchengensis (below)

This beautiful blue leaf gesneriad is critically endangered. Only two populations, each with 200-300 plants, currently exist. It has been indiscriminately collected. It is now growing in the Display House at the Gesneriad Conservation Center of China (GCCC).





Primulina ronganensis

Only two populations are known, one near a village, and another along a road — only 300-400 individual plants in total.

Professor Wei of the Gesneriad Conservation Center of China (GCCC) and Stephen Maciejewski pointing to *Primulina ronganensis*. Stephen carried Professor Wei Yi-Gang's 777 page book, ***Gesneriaceae of South China*** (which weighs around seven pounds) with him on his first trip to China in 2011, just to take photos like this.





Dr. Wen Fang pointing to *Primulina longicalyx*. This plant is endangered. It only grows in Guilin, China. **There are only seventy plants that are known to exist.**

Dr. Wen Fang will be speaking at the Gesneriad Society Convention in Nashville this coming July.



Photos and text originally appeared in a slightly different form as part of a PowerPoint presentation given to the Long Island Gesneriad Society by Stephen Maciejewski. Used with permission of the author. This PowerPoint presentation is one of seven Stephen has available to present to your chapter such as:

- **Gesneriad Conservation Center of China (GCCC)**
- **Wild Viet Nam: Leeches, Vipera, Batboys and Gesneriads**
- **Ecuador: Misty Mountains, Musical Mud, Ice Cream Trees and Unknown Gesneriads**
- **China: Disappearing Mountains, White Bees, Venomous Caterpillars and Grandma's Primulina**

Contact Stephen for a complete list.

Stephen will soon be leading a group of gesneriad enthusiasts on another trip to China and a visit to the Gesneriad Conservation Center of China (GCCC).

Learn more about the GCCC by going to the Gesneriad Society website and clicking on the link to the GCCC or <http://www.gxib.cn/GCCC/GCCC.html>

Back to Basics: Streptocarpus

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I can't think of a more exciting genus right now than *Streptocarpus*. There are all sorts of species seed in the Seed Fund, plus there are plenty of fascinating new hybrids being created. Streptocarpus come in quite a range of sizes and flower colors and some have scent. Most hybrids bloom constantly and are happy growing in natural window light, under shady trees in warm weather, in greenhouses, or on plant stands. I'm in the midst of writing a booklet on *Streptocarpus* for The Gesneriad Society, so I know there's a vast amount of information that can only be touched upon lightly in this article.

Culture: Most streptocarpus plants grow easily in well-drained soil that's allowed to slightly dry out between waterings. Although that seems what's best for them, some of us grow them on wick reservoirs and the roots are never dry. Discussions with some streptocarpus growers have resulted in agreement that 1/8 teaspoon of a balanced fertilizer or a fertilizer with slightly higher nitrogen is best. For at least three years now, I've used a couple different non-urea, orchid fertilizers with higher nitrogen, and never used a "high bloom" or higher Phosphate fertilizer. One of my entries, *Streptocarpus* 'Heartland's Peacock', was in spectacular bloom when it was awarded the "Best Streptocarpus" award at the AVSA convention in 2012. Although African violet growers often express concern that higher Nitrogen fertilizers cause decreased variegation, my variegated streps do well with it. I grow under cheap T-8 and T-12 cool white fluorescent tube lights that are on for 10 hours a day. The streps appear to bloom better under two sets (4 tubes per shelf) of T-8 lights.



Blooming plants on Dale's plant stand

Let's talk leaching, as I believe it's one of the most important culture requirements. Plants that have grown in small pots (2 1/2 inch or 3 ounce plastic cups) and are ready to go into larger pots, have absorbed a few months' worth of fertilizer. Therefore, leach out the fertilizer salts from the old soil before transplanting. Even if you like to remove some soil from the roots, there still is old soil attached. Leach by placing a pot over a bucket and by slowly pouring up to two cups of water through the pot. Often after leaching, I will then pour through the pot a light fertilizer such as a "Foliage-Pro" 9-3-6 that is mixed at 1/8 teaspoon per gallon of water. An option for those who think the plant's leaves are too yellowish is to leach first, and then pour water mixed at ratio of 1 teaspoon per half gallon of Epsom salts through the pot. Do not combine Epsom salts with fertilizer. I've seen Epsom salts help center leaves become greener, but older leaves that remain yellowish should be removed. I leach my pots, no matter what size, at least every 8 to 12 weeks.

Soiless mix: Loose, well-draining soiless mix begins with sphagnum peat moss. Most growers add perlite and vermiculite plus some dolomitic lime to balance the acidity of the sphagnum peat moss. The pH should be slightly on the acidic side. I have heard of some who like to add

pasteurized leaf mold and others who add aged horse manure. Because we all have different water (rain, tap, reverse osmosis, well water), it is important to experiment to find what soilless mix works best for your type of watering conditions (reservoir or hand watering). I wick water, therefore my soil is lightened by as much as 50% with perlite. If you purchase soil, be sure to note if the package says "moisture retaining" as that can indicate that a product was added that holds moisture. In that case the soil would need additional perlite. Also note if the package contains fertilizer. If so, then either don't use additional fertilizer for the first month (particularly on young plants), or reduce the amount of additional fertilizer you use.

Insects: Yellow or blue sticky cards, hanging from the plant stands, help you see the type and quantity of flying insects. They are typically hung, but I've also laid the cards down flat on stands to see if anything is walking around. I put one under a recently purchased Strep, and I caught mealybugs that had dropped off the plant.

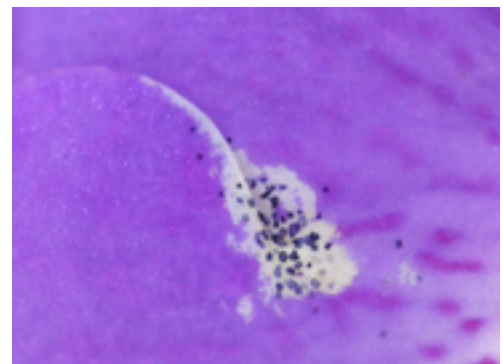
Mealybugs: Although you can purchase insecticides for mealybugs, I'd rather take a leaf and start over. The big fat, cottony mealybugs above the soil that hide in nodes and lay eggs on the backs of leaves are really a challenge. They move quickly, too, and you need to research as to what the various life stages look like. You think they're gone, but that little, pale wiggly thing crawling on a leaf might be one of the stages. Again, it's just easier to start over with a leaf, but don't trust there weren't eggs or larvae on the leaf cuttings. Mealybugs in soil are a challenge to kill, and if you have plants on reservoirs, you'll see them floating on the water.

Thrips: I've had thrips that puncture and then suck on flowers as well as leaves. On flowers look for black dots on petals or pollen spilled in the flower's throat area. On new purchases, it's a good idea to keep the flowers and buds removed for at least three months. On leaves look for silvery lines because the top leaf layer was stripped. Thrips appreciate heat for their life cycle, so summertime seems when they do their best to increase population. Whatever critters you are battling, talk to your friendly gesneriad commercial grower and ask what's best to use and follow the directions on the bottle.

Mites: Unlike African violets, which show mite damage in the plant's center, strep leaves show damage near the tips and the leaves appear grayish due to the webbing. The eight-legged mites walking on the leaves are visible with a strong magnifying glass, especially if you use a very bright light because they run away from the light. If you use a miticide, read the instructions and good luck. I never keep a mite infested plant.



Insects on yellow sticky card (top)
Mealybug (below)



Thrips damage



Mite damage



Leaf propagation of *Streptocarpus*

After treating plants for any insects, isolation for three months is the best thing to do if you found insects of any kind. Unfortunately with mites, the three month isolation – especially in a humid terrarium environment – seems to simply hold down the population. Once the plant is out in room air, the mites thrive and spread.

Propagation: A long time ago I used to remove the mid-rib and plant leaf halves in a light mix. That generally works, but for variegated streps it does not. The white areas rot. So I have gone back to cutting 2-1/2 inch sections from base to tip while keeping the leaf and cuttings under water. I leave them in the water for about five minutes. I then bury each leaf section about 3/4 of an inch deep in a soilless mix lightened with extra perlite and vermiculite. In the warmer seasons you'll see young, green leaf tips popping out of the soil in a matter of weeks. In the colder seasons, it can take longer.

When you have a plant that's overgrown, it's time to separate the plant. First remove all the flower stems so you can see what you're doing. Then remove all the leaves that are yellowish. Then look for natural separation

areas between plants in the pot. Cut straight down with a sharp knife. I usually remove the bottom half of the soil under the newly sectioned plants. Then I replot into the smallest pot possible and place several of the newly potted plants in a gallon-sized baggie, but don't zip the baggie closed. Although the plants will go into shock, the baggies help keep humidity high and will support the leaves for the two or three weeks adjustment time. Keep the soil moist, but not soaking wet. The worst thing you can do for a strep when repotting is to bury it too deeply in the pot. In that case, the newly emerging leaves will have a blackish-wet look.



The separation of an overgrown plant of *Streptocarpus* 'Dale's Scarlet Macaw', yielding 5 new plants

Hybridizing: I have to thank Michael Kartuz who taught me about hybridizing streps back in the 1980's. He'd give a lecture to our Grow and Study Gesneriad chapter once a year and bring a carload of gesneriads including his strep hybrids. After the club's meeting was over, Michael kindly and patiently answered my hybridizing questions and gave me advice as to what to cross. When you hybridize, have a goal in mind and choose the parents accordingly. I wait until flowers have been open at least a week before pollinating. After fertilization, the pistil elongates and it takes about eight weeks to ripen the seeds. The first flower can appear within 4-1/2 months from sowing seed, but only if seedlings are transplanted often. I begin transplanting when the seedling is 10 days old because transplanting stimulates growth.



Streptocarpus seed pod, untwisted

The challenge in hybridizing is that your goal may need a couple of generations to achieve. Novices tend to see small differences in their newly hybridized plants and want to name far too many seedlings. The public doesn't see the differences and wonders why the hybridizer named all those look-alikes. Novices need to check photos on the internet and compare their hybrids to ones already named. I throw away several hundred hybrids each year and name very few. My reputation means everything to me. Judges who judge the New Hybrids/Cultivars section of Society flower shows need to ask themselves, "Will I remember this hybrid in two weeks?" Therefore, I look at my hybrid and ask myself if that seedling was on a show table with 20 other show plants, would the judges remember mine two weeks later? Please don't hesitate to contact me for advice on hybridizing streps.

This article appeared originally in GESNERIADS Vol. 63, No. 4, Fourth Quarter 2013, 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.



Streptocarpus pentherianus
All photos by the author



From the editor —

Lots of cold weather where I live in Ohio. It is often a challenge to warm up my garage work area so that I can repot and propagate plants. Hope it is warmer where you live!

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

Think spring!

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