March 2021

INSIDE THE ISSUE

Cover Photos – Skotak Neoregelia 'Tremendous Tiger'

The BROMELIAD SOCIETY of SOUTH FLORIDA
MIAMI, FLORIDA.

BromeliAdvisory

Stop and Smell the Bromeliads

March 2021
WEBPAGE: http://www.bssf-miami.org/

http://www.facebook.com/groups/BromeliadSSF/?bookmark_t=group
http://www.facebook.com/pages/Bromeliad-Society-of-South-Florida/84661684279

What	Who
Sales Table	Open to All We welcome members to sell plants at the monthly meetings. However, if you are planning to sell please call Alex Bello (239-223-6155 or bellotropicals@yahoo.com) to make arrangements.
Silent Auction	NONE

MARCH 16, 2021 ZOOM **MEETING**
***** NEW LOG IN ID SEE BELOW**
Speaker: Chester Skotak

About the Speaker

Chester is a hybridizer of bromeliads. Born and raised in Texas USA, he moved to Costa Rica in 1978. Chester owns Dura Flor, a bromeliad nursery in the town of Pameres, an hour's drive from San Jose. Variegated plants are his favorites. Chester has led plant-collecting expeditions throughout Central and South America.

President's Message

This month will hopefully mark our last zoom meeting. Fairchild has just given us permission to host live meetings in the Garden House, with rules, starting in April. Masks and social distancing must be observed. Temperatures must be taken at the door. Each attendee must sign a waiver. The signed waiver will be used for contact tracing should the need arise. And no food will be served at least at the first meeting. This marks the beginning of recovery for our society. I hope you are looking forward to it as much as I am. Let's all adhere to Fairchild's rule so that we can continue to have live meetings.

In the meantime please join us **March 16** for a video featuring the Chester Skotak. The link is: https://fiu.zoom.us/j/97258326945?pwd=Q3RlbHVLSjE4U3NybUx0QTViV01sZz09. Please send any changes in address, phone or email to Terri Tallale at elwood172@aol.com so that we can keep in touch with you. And please respond to my vaccine survey elsewhere in the Advisory to help us in our planning.

See you at the meeting!

Maureen Adelman

ZOOM INFO FOR THE MEETING

If you Have download the FREE Zoom App on Computer
Meeting ID: 972 5832 6945
Passcode: BSSF2020

If Buying on Amazon – Think Smile.Amazon.com

I had some trouble balancing our BSSF checking account for December but it was for a good reason. There was a deposit from Smile.Amazon.com. Amazon will partner with a charity of your choice and donate .5% of all purchases to that charity. And you know how much we all shop on Amazon right now. First sign up at Smile.Amazon and choose your charity, hopefully BSSF, Inc. Then instead of going to Amazon.com to shop, you go to **Smile.Amazon.com** and shop. It's the same website except for the charitable donation. I signed up as soon as I saw that donation on our bank statement and I hope you will too.

In Case You Missed It

by Leonard Goldstein

Our meeting program in February was presented by a familiar face, albeit from a distance instead of in person. You know; that virus thing. Pam Koide Hyatt is the owner of Bird Rock Tropicals in Encinitas, California, a mile and a half from the Pacific Ocean. She last spoke to us in April 2018 on "Diversity of Tillandsia Species in Mexico." This time her topic was "Tillandsia Hybrids," and, as usual, her presentation was enhanced by excellent photos.

Pam's business was inspired by an eco-tour she took to Mexico, Central America, and South America in 1981, and within a few years she made hybridizing Tillandsias her specialty. It's a time-consuming process, but she has now created more than 3,000 hybrids. Pam started with a 12' X 12' glass house, but moved to a much larger site in 1983. There she built two bromeliad houses, one for high-elevation plants, good for California's cool nights, and an intermediate house for warmer-temperature plants. The latter was also tiered to provide ideal spots for light-needy bromeliads.

Worries about collecting provided Pam the impetus to start hybridizing in 1985. She pollinated plants by both finger and brush and learned that ripening time for seed required six months to two years. She also realized that a single plant might contain pollen from multiple sources, so good record-keeping became imperative. In labeling a cross, the protocol is to name the maternal parent first and the pollen source second. Her pursuit requires patience; after making a successful cross, the Tillandsia hybridizer might have to wait another 6-20 years to see results! Our local masterful Tillandsia hybridizer, the late Steve Correale, knew that only too well.

In habitat, seeds are often ready just before the six-month rainy season. Hairs help seeds attach to trees or other substrate. Pam germinated seeds on top of shadecloth. At some point, seedlings would have to be separated. Mesic species would be planted earlier, in peat and perlite, so as to meet their moisture needs.

There are lots of natural Tillandsia hybrids. T. ionantha has a very extensive range and is therefore prone to more natural hybridization. And since it is the dominant species in a cross, hybrids look very much like it. On the other hand, while T. fasciculata is also widespread, it is not as likely to produce lookalike hybrids.

The register hybrids, one must go to the BSI Cultivar Registry. Pam blooms a plant for several generations before registering the cross. Her inspirations in hybridizing have been Mark Dimmitt and John Arden.

Pam's Tillandsia hybrids have often included *mauryana*, *tectorum*, *neglecta*, *sucrei*, *sprengeliana*, *ixioides*, *tenuifolia*, *achyrostachys*, and *deppeana*. Other species she has used to make crosses are *streptophylla*, *ehlersiana*, *concolor*, *fasciculata* var. *uncispica*, *mitlaensis*, *carlsoniae*, *bourgaei*, *leucolepis*, *schusteri*, *pueblensis*, *paucifolia* (Mexican form), *circinnatoides*, *capitata* (pink), *punctulata*, *beutelspacheri*, *copanensis*, *kalmbacheri*, *jalisco-monticola*, *magnispica*, *caput-medusae*, *roseocapa*, *latifolia* var. *divaricata*, *rotundata*, *tricolor*, *flabellata*, *subteres*, *supermexicana*, *lampropoda*, *rotundata*, *dugesii*, *limbata*, *eizii*, *lucida*, and *pamelae*.

One of Pam's newer crosses, T. pamelae X schusteri, registered in 2020, took 20 years to bloom. She also made an interesting discovery: T. carlsoniae, while itself hard to grow, is improved by hybridization. The same is true for T. punctulata, which has produced some good red hybrids. (By the way, she noted, too much fertilizer darkens the inflorescence.)

Other relatively recent hybrids include *schusteri X carlsoniae, borealis* (other parent unkown), *calothyrum* hybrids, *magnispica X tricola, paryii X gymnobotrya, rothii X jalisco-monticola, kalmbacheri X streptophylla, streptophylla X concolor* (red), *edithae X meridionalis, and tomasellii X fasciculata var. uncispica*. 'Bossa Nova' *(sprengeliana X gardneri)* is slow and not easy to grow.

Pam's prizewinner, *T.* 'Samantha', is derived from *T. mooreana (*from Jalisco) and *T. kalmbacheri*

(from Michoacan). Variations occurred in that grex, so the plant ended up being commercially produced through tissue culture. By that route, it took nearly seven years, 2003-10, to produce. 'Samantha' was named a semi-finalist at the Chelsea Flower Show in 2012 and earned the Glass Tulip Award - the Oscar of the European horticultural industry - from FloraHolland in 2013.

In the commercial run of 'Samantha', the following aides were utilized to increase production: 10 Fertilizer; 2) Controlled environment: The computer-run production created 100,000 little Samanthas in 80 weeks; 3) In-vitro seed culture; or 4) Tissue culture: The plants were under light maybe 15-18 hours a day. Most recently, in 2020, Pam bloomed T. thysigae and T. superinsignis, which she will evaluate for worthiness for tissue culture.

Pam closed out her thoroughgoing program with a Q&A session that yielded the following information: (1) She has a display garden, but it is open by appointment only due to COVID-19; (2) Her recommended planting medium is peat moss mixed with bark, and *Tillandsias* grown in that mix should be allowed to dry out between waterings; (3) To succeed with T. tectorum in Florida, a grower has to avoid humidity. She grows hers at the top of her tiered greenhouse to achieve optimum light exposure; (4) Crosses using intermediate species with more mesic species might work in Florida; (5) High-elevation *Tillandsias* from Peru and Ecuador are difficult and require reverse osmosis water. They're not likely to succeed in Florida; (6) *T.* 'Samantha' should be grown in a pot, referably in a mix of peat moss and bark. If grown in lava rock, it needs to be watered more often.

Tips and News about the 2021 BSSF Show and Sale

by Barbara Partagas, Show Chairperson

The BSSF Show and Sale event is cautiously and optimistically scheduled for Thursday, Oct. 21, 2021 to Sunday, Oct. 24, 2021 – depending on the Covid-19 status, Fairchild regulations and BSSF.

Tip #1: If you have never entered a plant in the show competition, consider grooming just one plant as if you intend to enter it in the show. Give it special care until show time then consider entering it. If it looks really good to you, it probably will look good to the judges, also. Your BSSF friends can help with grooming tips. If you have questions, call me and I'll try to help.

Tip #2: The show rules require that a plant entered in the show must have been grown by the exhibitor for at least **six** months. So you can choose a plant you've been growing or you can go out and buy one between now and **April 21, 2021** and keep growing and grooming it.

Tip #3: In the past, exhibitors were required to pick up their plants no earlier than 4:30 pm on the last day of the show. This year for new exhibitors, special arrangements for pick up can be arranged in advance with the Show Chairman.

Happy growing and grooming,

UPCOMING EVENTS

March 2628, 2021
Tropiflora Spring Festival
https://tropiflora.com/pages/events

October 1-3, 2021
Tamiami International Orchid Festival
https://www.facebook.com/tamiamiorchidfestival/

MESSAGES

WORLD CONFERENCE
SAME PLACE NEXT YEAR

World Conference may be held on June 8, 2021 to June 12, 2021 at same place. Information can be found at:https://www.bsi.org/new/conference-corner/

Garden Notes- March 2021

By Stephanie LaRusso

March- You've Got Seeds!

Spring is finally beginning and many of your bromeliads are starting to bloom and produce seeds! For those of you interested in hybridization or for those who just want to practice new propagation techniques, this is the season to get started! This month's column will discuss the reasons you may want to grow bromeliads from seed, how to pollinate your flowers, how to tell when fruit is ma- ture, how to germinate your seeds and what to do once your seedlings are growing.

Within the Bromeliaceae Family there are three seed types. These seed types help divide this family into the three subfamilies, Bromelioideae, Tillandsioideae and Pitcairniodeae. To help keep thing simple, the column will focus mainly on seed propagation of the Bromelioidae subfamily but many of the techniques also apply to the other two subfamilies as well.

Why would you want to grow bromeliads from seed?

If you have been growing bromeliads for a while, you are probably used to propagating by pup. You can, however, also grow bromeliads from seed. Before you get too excited, there are very good reasons not to do this.

The first reason is that it takes a long time. From bloom to pollination, and then germination to full size plants you are looking at least a year possibly more before you have a new blooming size plant. This is much slower than starting from a pup, which can provide a new blooming size plant in as little a month.

While time loss is a huge downside, the main reason that people don't grow bromeliads from seed is that seedlings are not guaranteed to look like their parents.

When you take a pup from a mother plant it is typically a clone and will most likely have similar foliage and also bloom characteristics as the parent. Seedlings, however can have wildly different characteristics from since the genetic material from the mother plant is mixed with the genetic material of the pollen parent who may be from a different species or even a different genus.

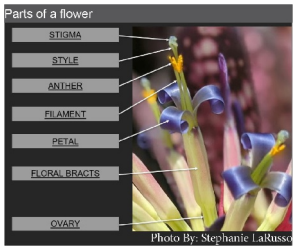
The only exception to this is those bromeliads that self seed. Self seeding means that a plant's own pollen can be used to produce seed. Since there is only

one set of genetic material, seedlings will grow up to look like the parent. For these specific bromeliads, seed propagation can be an excellent way to grow large quantities for sale from just one mother plant. If you want to know if a bromeliad self seeds, take a look at the inflorescence. Pollinators typically miss a flower or two so if all flowers on an inflorescence mature into seeded fruit that usually means that no pollinator was needed. Below are photos showing a self seedling inflorescence. As you can see all flowers made successful fruit.

The main reason people grow bromeliads from seed is to create hybrids. The reason for this is that all pollen from the Bromeliaceae family is compatible, which means that pollen from any plant in this family can be combined with any other to make something new. For the patient and creative gardener who is willing to carefully pollinate, this means that there is endless possibility to create allkinds of fun combinations of their favorite plants.

How do you pollinate bromeliad flowers?

If you decide to try your hand at hybridizing you will need to start by pollinating your flowers! It is best to pollinate when flowers begin to open early in the morning. First, you will need to choose two open flowers on two different plants. Start by removing the pedals of both flowers to expose the stigma and anthers. Do this gently so you don't spill the pollen! Next take some forceps and brush the anthers until you see pollen stuck on the forceps ridges. Move your forceps to the next flower and place the pollen gently on the stigma until it sticks. Next, mark your flowers so you can keep track of which plants you crossed. We use color coated bread bag ties which we wrap around the flower base. If you are pollinating a Neoregelia, where the flowers are withing the cup of the plant, you can stick in colored toothpicks as markers. Use the same colored marker on both flowers of both plants and record the parents names along with the color you used so you can refer to it in the future.



The last step to pollinating is to protect your flowers from other pollinators! If you want to insure that you know the parents of your seedlings you need to make sure that no other animal gets to your flowers after you. Putting plants in an enclosed greenhouse can help but remember that even ants may be able to pollinate flowers so be diligent in protecting your flowers!

How do you tell when seeds are ready?

Every bromeliad bloom has its own special look when seeds are ready but their are a few ways to be fairly sure that your pollination was successful and that your seeds are ready. First, while the flower will die, the ovary of a

successfully pollinated flower will stay attached to the inflorescence axis. Soon after the ovary will start to swell and become a fruit. Color change is a very good sign. Typically, but not always, the swollen ovary will get darker and darker as the fruit matures. In Neoregelias, the fruit will sometimes even push up above the others once the seeds are ready. In all cases, the best and easiest way to tell when the fruit has matured is to tug gently on the fruit itself. If it comes off easily then you are good to go! Below are some images where pollination was successful and the fruit is ready.

Beware of the fakers! Some blooms can be tricky. In the first picture below, none of the fruit changed color but upon inspection, there are seeds in many of the fruits. The opposite can also happen, as shown in the second picture where all the fruits change color but none have seeds.

How do you prepare seeds?

Once your fruit is ripe and you collect the seeds it's time to prep them. Often they are covered in a gel type substance. You will want to get as much of this off as you can as it can grow fungus and ruin your seeds.

One method of doing this is to squeeze the seeds onto a paper towel and pour a little hydrogen peroxide 3% solution over the top. The paper towel absorbs a lot of the gel and the hydrogen perox- ide sterilizes the seed.

Let everything air dry for a few minutes and you are ready to plant! If you can't plant the seeds immediately, you can also roll or fold your seed paper towel around a labeled plant tag and store it in a dry place until you are ready. The fresher the seeds are when planted the better but storing seeds for short times won't hurt.

How do you plant the seeds and what do you do once seeds germinate?

Once your seeds are prepared simply lay them on top of your favorite well-draining soil mixture and then sprinkle a very little extra soil on top. We use two parts perlite, one part peat moss and a balanced slow release fertilizer in our mix but many other soil types will work just fine. Don't be afraid to put multiple seeds in one small pot. In a four inch pot we often put as many as 15 to 20 seeds. Once you finish lightly covering the seeds, water the soil throughly with a very gentle spray. If possible, protect your newly planted seeds from cold and small creatures by putting them in a greenhouse or covering them with a mesh screen. Keep soil moist while you wait for germination but don't let water collect on the soil surface. Remember to write the name of the plant cross on a tag and place it in the pot. It is also a good idea to write the date when you planted the seeds for reference later. Seed germination can be very quick or very slow so be patient.

Many of your seedlings will start out looking the same, mostly green. Often seedlings won't show any color or pattern until they have been growing for a month or more. If all goes well then soon your seedlings will fill the pot. When the seedlings start to look crowded in their communal pot it is a good time to separate them into individual pots. When you do this check to see that roots are developing well and throw out any seedlings that look like they may have a disease or fungus starting. Make sure when you separate that you label all individual pots so you don't lose track of who is who.

When the seedling roots start to take over the individual pots it is safe to move them out of the greenhouse and place them with your other plants. From now on you can re-pot and fertilize them as needed. All that is left to do now is wait and see what new and beautiful plants you have created! Until next month, Keep growing everyone!

WHAT's in BLOOM

by Stephanie LaRusso

This month many Billbergia blooms are fading or finishing their last flowers. The Aechmeas, which started last month, are continuing to bloom and starting to look their best. After a long preparation of elaborate floral bracts, many Orthophytums are starting to open their flowers. Quesnelias are still blooming and at their peak. A few varieties of Nudicaulis are coming into bud along with some Hohenbergias. Toward mid March, the Vrieseas are either starting to bud or just opening their first flowers! Here is what is in Bloom in the Herndon Collection from the middle of February to the middle of March!

CHANGES IN ADDRESS? PHONE? EMAIL?

The form on the following page needs ONLY be filled out in the event that your contact information has changed. Remember, membership in 2021 is **free**.