

S E M B S

The Southeast Michigan Bromeliad Society an Affiliate of the Bromeliad Society International **January/February 2024**



*The February meeting will reprise our increasingly popular Zoom meeting “Show & Tell”.
The photo here features a portion of Paul Wingert’s shade house from June 2023.*

Calendar January/February 2024

Best wishes to everyone for a Happy New Year! The January meeting will take place by Zoom on Saturday, January 20 at 2:00 PM. [January 20 meeting Zoom link](#)

Meeting ID: 748 780 6168 Passcode: 029552

Time: Jan 20, 2024 02:00 PM Eastern Time (US and Canada)

Find your local number: <https://us06web.zoom.us/j/kdGpTEXvvh>

The topic will be “The BSI WBC Experience”. Paul Wingert has attended several recent Conferences and will present highlights of plants from the Judged Shows, representative examples of the Sales areas, and photos from the nursery visits and garden tours. The plants are often spectacular, with beautiful new hybrids, cultivars, and species introductions. Each World Conference has its own special character, typically featuring bromeliads that thrive in the weather conditions of the hosting region.

The February meeting will also take place using Zoom on Saturday, February 24 at 2:00 PM. We will reprise last February’s experience where we had a virtual “Show & Tell”. [February 24 SEMBS Zoom meeting link](#) Participants in last year’s event really had an enjoyable time and recommended that we repeat the event! February is the perfect time for such a meeting, as the weather and travel can be most unpredictable. This also allows an opportunity for our more remote members to participate! For those who have experience using screen sharing in Zoom, feel free to present photos from your own computer/laptop/tablet/phone. If you are not familiar with screen sharing (it can be tricky/frustrating) but you want to participate, you may send your photos in advance of the meeting to [Paul Wingert](#). Paul will serve as moderator for the meeting and can assist in presenting photos. Everyone is encouraged to share photos of their favorite bromeliads of 2023, plants currently in bloom, and growing setups. Everyone learns something from witnessing the experience of others! Don’t have anything to show right now? Please join us for an afternoon of interesting discussions and pleasant society.

Looking forward- 2024 Calendar:

Sunday, March 17 at Matthaei Botanical Gardens- Seed starting workshop.

Saturday, April 20 at Matthaei Botanical Gardens- Carnivory in Bromeliads/ Sampling growing media for Bromeliads/ Plan group order for May distribution.

Saturday, May 18 at Paul/Karen Wingert’s home- Group order distribution. Genus discussion- to be determined.

Wednesday, May 22- Saturday, May 25- BSI World Conference, W. Palm Beach, Florida

Saturday, June 15- Field trip to Frederik Meijer Botanical Gardens, Grand Rapids, MI

Saturday, July 20, 1:00 at Jerry Raack’s home, Pataskala, OH featuring Jerry’s extensive collection of bromeliad species from Ecuador!

Saturday, August 17, 1:00 PM at Paul/Karen Wingert’s home- Summer potluck picnic and plant swap.

September 7-8 Annual Show and Sale at Matthaei Botanical Gardens.

Saturday, October 19- location and topic to be determined.

Saturday, November 9 at Matthaei Botanical Gardens- All about Billbergias!

Saturday, December 7, 1:00 PM at Lynne/Pat Echlin’s home- Holiday potluck!

Dues reminder- We were very lax about dues renewals during COVID. Thankfully, we are nearly back to normal! For individuals who joined the society or renewed dues at a meeting in 2023 or at the September Show, you are paid up through December 2024. All others, kindly remit dues by check to SEMBS by February 29, 2024 and mail to: SEMBS, PO Box 80472, Rochester Hills, MI 48308-0472 Dues are \$12 for individuals, \$15 for families, and \$5 for members who live outside a 75-mile radius from Detroit. It is with regret that unpaid members will be removed from the mailing list as of March 1, 2024

A Word on Mounts – by Brooke Monette

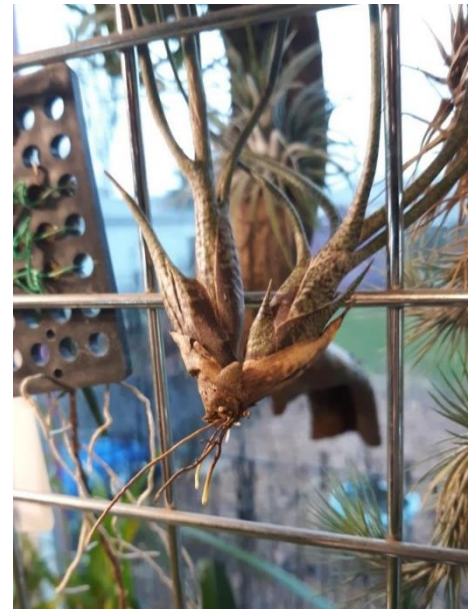
This past October, we learned a few mounting techniques, and got a chance to practice them at our meeting at Graye's Greenhouse with a variety of supplies. By now, we should be seeing some root growth. How long does it take for a plant to attach itself to a new mount? Well, that depends on a number of factors, and the answer can vary from a few weeks to never at all.

I've experimented with various materials and decided to try using a couple types of pumice and lava rock in addition to the wood and cork I've used in the past. I'm finding that the keys to convincing a plant to root onto any surface are to 1. Make sure the mount is secure, that is, it isn't getting jostled enough that it's loose and wiggles independently from the mount when bumped, and 2. Regularly wet the surface of the mount. Why?

Tillandsia butzii rooting in the direction from which misting occurs>

Well, roots follow water, and will reach out to wherever they sense it with the greatest reliability (or, less often, away from it where there is a risk of rot). If the air around them regularly holds more moisture than the mount, the roots will grow away from the mount. For example, I have a plant growing in my shower stall whose roots stretch directly towards the shower spray. If you tend to mist your mounted plants, you have probably already seen this phenomenon. If the mount offers more reliable moisture, the roots will more likely grow onto the mount. This is a process called hydrotropism, with the prefix, "hydro-," referring to water, and incorporating the Greek word, "tropos", meaning, "a turning". The term describes a growth habit in response to the presence of water.

So, if you find that your plant hasn't rooted to the mount yet, try giving a regular trickle of water down the mount and aim for the same place every time for a few months. Aim for a place that won't sog out the crown,



but close enough that the nodes where the roots are likely to emerge have a good chance of noticing the moisture there.

<Two tillandsias rooting in the general direction of their pumice mounts. The pumice is occasionally saturated with water, which encourages roots to develop and attach to the pumice.



Hints for Creating Successful Vivaria- by Brooke Monette

At our November meeting, we got to watch the building process and learn about keeping bromeliads in contained, miniature ecosystems. The presentation was led by our vice-president, Brooke Monette, who has over ten years of experience in keeping vivaria, 4+ years of full time, science focused education, and who currently maintains ten inhabited tanks and a handful of small, decorative terraria. If you missed the meeting or just want to review a few key points, the highlights are included here.

When we build a vivarium, terrarium, aquarium, riparium, paludarium, orchidarium, or what might be proposed as a bromeliarium, we're trying to replicate the habitat in which our focal species grows. For a fairly typical tropical habitat that would support common bromeliad types, such as Neoregelias, Wallisias (cyanea and its hybrids & cultivars in particular), Billbergia, and Cryptanthus, much of the groundwork has been laid by frog hobbyists, and that's due to the relationship between frogs and Bromeliaceae throughout much of South and Central America. These genera have a lot of diversity in color and form, and many remain small enough at maturity to house in an average tank. There's a lot that goes into building these for long term success, but we're going to keep it simple. We've retrofitted these guidelines to focus on bromeliads, not on animal keeping, so please keep that in mind. This is by no means a comprehensive guide, just a good reference for getting started.

Construction Basics

1. **Drainage:** To keep the tank light, most people use a DIY egg crate riser covered in either fiberglass window screen or weed block fabric to create at least a 1in gap between the water level and the



bottom of the substrate to keep it from remaining waterlogged, which would lead to rot. Some people use LECA (lightweight expanded clay aggregate), the little clay balls they carry at hydroponics stores. LECA isn't as light as the egg crate method, but it does give springtails a lot of surface area for reproduction. Aquarium pebbles and stones will make a tank very heavy very quickly, and also tend to increase the hardness of the water, which can leave mineral deposits on the glass and ruin your view of the interior, so they're not recommended. Plan on a 2 or 3in high drainage layer.

2. **Substrate:** For long term success, you'll want to use ABG mix, which was developed by the Atlanta Botanical Gardens in Georgia. It was made to maintain aeration and resist decay while being consistently moist for years. It's been in use in their conservatory for years and is well tested and has shown decades of success among thousands of hobbyists and their collections as well. Pet store knockoffs exist but are not recommended. Glass Box Tropicals (a shop on Etsy) carries ABG mix to the correct specifications.
3. **Background:** If you want to grow lots of small epiphytes like vining ferns, orchids, and various aroids to complement your bromeliads, you can employ pieces of cork leaned against the glass, or siliconed to

the glass with sphagnum moss stuff into the crevices, often called the cork bark mosaic method. We strongly recommend aquarium safe silicone to avoid the mold inhibitors that are in hardware store caulks. Some people use Great Stuff, an expanding foam that can be carved to your liking once it has cured. You can also use tree fern panels or sheets of spiral, a synthetic fabric, among a few other things. These are the most common materials.

4. Hardscape: Decorative woods that take many years to decay and will therefore be dependable to mounting plants include Manzanita burls, Ghostwood, Java wood, and cork. DO NOT USE GRAPE WOOD. It will turn to soft mush in a handful of weeks in the humid environment of a vivarium. The same goes for cholla. Using wood adds visual interest and is an excellent way to mount the epiphytic bromeliads you plan to use. There are plenty of great fake rocks made by Universal Rocks and a smaller company called VivariumWorks.
5. Ventilation: In general, passive ventilation works, but having a small computer fan set on top of your vent can really help with plants that need more air movement, such as many smaller orchids, and bromeliads generally like some breeze. I like to have these plugged into a small switch so that I can turn them on and off manually. You don't want them constantly running. Relatedly, leaving the top 100% screen or without a lid at all will lead to it drying out fairly quickly. We're aiming for a humidity level of around 60-80%. About 10-20% of the top of the tank should be devoted to a vent gap. Many people use a screen frame kit to make their own tiny window screen, and then cut a piece of glass to fit the remaining area of the top. One can also just lay the glass on top of an existing screen if your tank comes with one. Be sure to sand all cut edges of the glass before installing. Your fingers will thank you!
6. Plants and Plant Prep: To avoid insect pests, wash your plants. The most common procedure is to give them a 30-minute soak in lukewarm/tepid water with a little dish soap. After a very good rinse, a soak in bleach water (do not use bleach with anti-splash or other additives, they do more damage to leaf tissues than cheap, off brand, unscented bleach) at 10% bleach and 90% water for 10 minutes is usually sufficient to kill any pests. Rinse well, and then soak plants for a further 10 minutes in a water and aquarium dechlorinator solution to counteract any bleach the plants may have absorbed into their tissues. Distilled or reverse osmosis water is best at this step. After removing plants from this last soak, set them in your tank and allow them time for any wounds introduced in the cleaning process to dry at least overnight before planting in the substrate or mounting. If you want moss, countless online aquarium retailers offer good moss options, many of which are even sterile, tissue cultured starters. Cryptanthus love to be planted directly in the substrate, and I've successfully done this with Wallisia cyanea as well. Some Neoregelias will tolerate this, but they tend to prefer mounting. Billbergias are the same way and have so far tended to be more tolerant of drier placement. Tillandsias, including



Spanish moss, do not really like being in tanks. You may see internet photos of new tanks with tillandsias inside, but don't be fooled; they will rot in the high humidity and low airflow of the average vivarium. Pro tip- Use cuttings from mother plants that you grow separately, so that if they don't succeed, you have a backup.

7. Lighting: These days, nearly everyone has upgraded to LED fixtures. You can use ANY LED. They do not need to be optimized for plant growth. In general, look for a bulb around 6500K color temperature. That gives the most natural look (though that's always subject to opinion). You can use anything from a shop fixture from the hardware store to aquarium lighting, and prices vary widely. I've tried lights from Spectral Designs, Lowe's, Josh's Frogs, eBay vendors, and pet store fixtures. Some are dimmable. Some can be controlled remotely by apps on your phone or a handheld remote, and others are much more basic. I can't offer a recommendation because there are so many that work, and you can always adjust as necessary as you monitor your plant's growth. For bromeliads, they typically like the brightest bulb you can get, just be sure to acclimate them to avoid leaf scorch, and plant them so there's a three-inch gap between their tallest leaves (at maturity) and the glass top.
8. Maintenance: Distilled or reverse osmosis (RO) water is best for avoiding mineral buildup on the glass and bromeliad trichomes, and for keeping chlorine and chloramines out of your tank, which can harm sensitive plants. RODI (reverse osmosis de-ionized) filters are reasonably cheap, but your LFS (local fish store) will usually sell RO water if you don't want to make that investment. Plan to water your new setup frequently in the first two weeks, possibly daily. After that, it depends on the size of the tank, the amount of ventilation, and how the plants are looking. A good rule of thumb is once a week. Neoregelias like having their central tank flushed out periodically with a good hard spray of water to keep from rotting the crown. There are automated misters available, and the most recommended one is the Mistking. It can be set on a timer, which is very handy for lazy people, or those who travel often. A good pump sprayer from the hardware store will also work. Hand misting makes it easier to tailor your spraying to avoid the plants who like it a little drier without making the thirstier ones suffer. It's a good idea to have a cheap aquascaping or bonsai tool kit for doing trimming as needed.
9. Springtails & Isopods: Silver springtails are almost sure to make an appearance in your tank, but you can also buy tropical white springtails to eat some of the mold species that will pop up here and there. They don't eat all mold species, but they do help break down various molds and detritus, and so do isopods. We recommend dwarf purple or dwarf white isopods, since they don't damage plants, and they are commonly available. You will see mold, especially within the first 2-8 weeks. Don't freak out. There will always be some amount of mold present in a vivarium or terrarium. If it starts taking over your plants, you can back off on watering and turn your fans on more often after cleaning it off the leaves.

Library Policy Effective 1 January 2024:

We are happy to announce that most of our collection was recovered in 2023, in two parts. Our new librarian is still cataloguing the second set of books, but in the meantime, we have a great list currently available for borrowing.

The society's library of books and journals is available to check out on a month-to-month basis to members free of charge. If you're interested in a particular genus, you likely will find something relevant. If you're a botany or horticultural student, you may find reference works that the local public or university library doesn't carry. With the extensive information available online, it's still difficult to duplicate the information contained in a 200-page book dedicated to a single genus, plant category, ecological niche, or geographical region. Many of these authors discuss nuances about the locations and climates where these plants thrive that can aid in their cultivation among hobbyists, and many of their observations have not yet found their way to the internet. If you are thinking of buying an expensive book to add to your personal library, this can give you an opportunity to decide if it's really worth the money.

We have created a spreadsheet for keeping track of lending and are looking over our collection. Our librarian will be bringing books to meetings by request and when they fit the meeting's theme. In cataloguing these volumes, we've noticed that two are entirely in German, which might be a real treat for some of our members. We hope that they'll indulge in a casual translation adventure and share their findings with the rest of us. If you're hoping for a little language expansion while your eyes linger over bromeliad photos, you might enjoy our three full color magazine issues of *Die Bromelie*, which is written primarily in German with English translations included.

There is also at least one title, *Tillandsia Handbook*, written in Japanese with English translations provided. It's got some great, full color photos of several species, many of which appear to have been photographed in situ.

Rules governing the use of the library: After three months of *active* attendance (attending at least three in-person meetings), any member may borrow up to two (2) items for up to two months. This time period may be extended with permission of the librarian provided that there have been no other requests for that particular item. If the next scheduled meeting is an online video meeting, then the items may be kept until the next in-person meeting. Library transactions will be suspended during the annual sales event. Requested items will be brought to the next general meeting or arrangements can be made to pick up or drop off library materials. Requests for library materials should be made by email at least two days prior to the next general meeting. All requests must be made via email (no verbal requests). If the librarian is unable to be present at a meeting, they may designate another member to distribute and/or receive library materials. If a member is unable to return an item due to a disability or loss of transportation, then they must contact the librarian to make arrangements for the return of the item(s). With the exception of remote monthly meetings, if an item is kept beyond two months without a prior request for an extension, there will be a late-fee charge of \$1.00 for each month past due. Lost or damaged items must be replaced at the lender's expense. The librarian will determine the replacement cost. Late fees as well as replacement costs are to be paid to the SEMBS treasurer.

Available Books as of 5th January 2024:

Jewels of the Jungle: Bromeliaceae of Ecuador Part I · Bromelioideae Numbered 0022

Jewels of the Jungle: Bromeliaceae of Ecuador Part II · Pitcairnioideae

Bromeliads for the Contemporary Garden (two copies)

Bromeliads for the Contemporary Garden (two copies)

The Book of Bromeliads and Hawaiian Tropical Flowers (signed copy)

Bromeliads: The Connoisseur's Guide (two copies)

Bromeliads: The Connoisseur's Guide (two copies)

Bromeliads [A Publication of The Bromeliad Society, Inc., 1977] (two copies)

Bromeliads [A Publication of The Bromeliad Society, Inc., 1977] (two copies)

Growing Bromeliads [The Bromeliad Society of Australia] 2nd Ed.

Bromelien für Zimmer und Gewächshaus, Band 1 Die Tillandsioideen
Zimmerpflanzen *von heute und morgen*: Bromeliaceen
Greenhouse Plants
Bromeliads: Tropical Air Plants
Bromeliads for Modern Living (signed copy)
Bromeliads: A Cultural Manual, 1992
Bromeliads: A Cultural Manual, 2003, rev. 2007, reprinted 2015 (two copies)
Bromeliads: A Cultural Manual, 2003, rev. 2007, reprinted 2015 (two copies)
Grande: The Magazine for Bromeliophiles Vol.1 No. 1 Summer 1978
Tillandsia Handbook
Die Bromelie: Deutsche Bromelien-Gesellschaft E. V. 2012 (3) ISSN 0724/0155
Die Bromelie: Deutsche Bromelien-Gesellschaft E. V. 2013 (1) ISSN 0724/0155
Die Bromelie: Deutsche Bromelien-Gesellschaft E. V. 2014 (1) ISSN 0724/0155
Bulbophyllums and Their Allies: A Grower's Guide
A Touch of Hospitality: Pineapple Cuisine (two copies)
A Touch of Hospitality: Pineapple Cuisine (two copies)
Journal of the Bromeliad Society Vol. 44, Jan-Feb 1994, Vol. 45 Nov-Dec 1995

Display at the San Diego World Bromeliad Conference- June 2018

