

BROMELIAD SOCIETY OF

SAN FRANCISCO

NOVEMBER 2015



Meeting Specifics

When: Thursday, November 19

Time: 7:30 PM

Where: Recreation Room
San Francisco County Fair Building
9th Avenue at Lincoln Way
San Francisco



New Explorations and Discoveries in Brazil

This month, we welcome back Dennis Cathcart, proprietor of Tropiflora nursery in Sarasota, Florida. Dennis and his wife Linda established Tropiflora in 1976 and this is one of the largest plant nurseries in the United States. Some have called Dennis the “Indiana Jones” of the Bromeliad world and that is pretty accurate. He and Linda have made over 100 collecting trips to more than 27 countries. His last talk to our society was about his role in helping to upgrade the botanical gardens in Singapore and that show was outstanding.

This month Dennis will provide a show on his extensive trip with Linda to Brazil in 2014. His show is divided into 3 parts with the first part focusing on terrestrials in Minas Gerais This will be held on Tuesday night for the San Francisco Succulent and Cactus Society. Our meeting will cover parts 2 and 3 in Rio Grande do Sul and Santa Catarina.

Dennis will also be bringing wonderful plants for sale.

Roger Lane signed up for refreshments this month. Any additional contributions are always appreciated.



October Meeting

Last month, Carl Carter introduced us to many bromeliads that are not commercially available

Last month, Carl Carter gave us a show on his visit to Bolivia several years ago. Among the many travelogues we experience at our meetings, Bolivia is almost never included. So it was a treat to see some of the plants that Carl saw on this trip. Since the trip focused on the Altiplano (high plains), the bromeliads were smaller than the typical plants that one

might see at lower altitudes. We saw some quite small Puyas in spike on the high plains. Carl generously donated one of them for our plant raffle. I believe that these small Puyas are not available commercially.

We also saw many miniature Tillandsias - some that we can obtain commercially, such as *Tillandsia myosura*, *T.*

caliginosa, and *T. recurvata*. But most of these miniature tillandsias were brand new for most of us. Carl had used one of the books in our library for identifying these plants. His last slide was of Peter Wan who was participating in one of his favorite activities on these trips: shopping! Thanks Carl for a great show.

This is typical landscape for the parts of Bolivia that Carl explored



If you have not registered for WBC 2016, time is running out to take advantage of the current registration fee. There is a form on the web site and in the journal, please join us in Houston for *Bromeliads Texas Style*. In addition, take a look at the revised Schedule of Events and make your travel plans to attend all the functions. It's time to consider making a donation to WBC 2016. The success of a conference relies on the generosity of both affiliates and members. Consider sponsoring an event or donating to the general fund, all donations are appreciated. Please advise Allyn Pearlman, treasurer, at deliboys@comcast.net of your intent to donate. All donations will be recognized in

WBC 2016

the conference program. The BSI Speakers Fund is a permanent part of our organizational endeavors to bring quality speakers to BSI events. Donations to the Speakers Fund should be sent to Ben Klugh, BSI treasurer. Requests for funding from the Speakers Fund must be made to the BSI Board of Directors. The Houston Bromeliad Society is working to plan an entertaining and educational conference. Please show them that you appreciate all that they are doing.

If your society is interested in hosting WBC 2018, please put your intentions in writing as soon as possible.

Growing Tips for Beginners



A typical vriesea with lower leaves removed, exposing the pup.



Twist and gently pull the pup away from the mother to remove.



Close up of the pup showing new roots intact and minimal damage to the base.

POTTING

Choose a pot big enough to house a mature plant of the type you are potting. Put around 1 inch deep of larger media (chunky bark, polystyrene chips, scoria, etc.) in the bottom of the pot to ensure good drainage so the pot and roots will never sit in any water. Pot the plant in the center of the pot as above (as high as possible without it becoming unstable). Two or three thin bamboo skewers are great for holding young pups upright in the pot until they form their roots and can stand on their own. Another good tip is to also put a layer of smaller bark (or pebbles) around the top of the potting mix to prevent moss growth and weed growth and help retain moisture in hot weather.

TREE AND ROCK MOUNTING

Many Bromeliads are also epiphytic (will grow well in trees) so they do not need any soil at all. These can simply be tied on with wire, strips of elasticized ribbing material or simply glued, nailed or stapled through or around the woody part of the base (stolon) onto the tree or rock. However, DO NOT fix them to or allow them to touch any tanalised timber fences, trellis, decks or oil painted surfaces, as the chemicals used in these are highly toxic to most bromeliads and can kill them. Always ensure the plant base is stable and doesn't move in the wind. It will then normally put out new roots, helping it attach more securely.

REMOVING OFFSETS (PUPS)

Most bromeliads self-propagate by producing offsets, commonly known as 'pups' from around their stem or root areas. This normally happens when they mature near or after flowering, as they attempt to create offspring that will continue to grow after the mother plant slowly dies, post flowering. However, it can also occur any time when the plant is stressed or has a change in environment that triggers the plant to produce pups or flower before maturity.

Basically, all pups can be removed either by cutting or pulling them gently off the mother plant. As a general rule, wait until the pup is around a third to half the size of the mother before removing it. They will grow much faster when still attached; so the longer they are left on, the better. There are four main types of pups you will have to deal with as follows:

(a) Basal

If the pup is emerging from the basal root area or inside one of the bottom leaves, firstly remove the plant from the pot or ground. If the pup is joined to the root ball, remove any soil and cut off the pup as close as possible to the mother, trying to retain any small roots that have formed on the pup's base

Have formed on the pup's base. For pups that emerge within the lower leaf axils, remove the leavers BELOW the pup by splitting and pulling them to the sides to expose where the pup joins the mother. These types of pups often have a natural 'joint' where the pup's base forms very close to the plant. If the pup can be gently pulled downwards and twisted without squeezing its stem, it will often come off quite easily without using a knife at all (see accompanying photos on previous page). However, this may be difficult with very large pups that are tightly connected to the mother. In this case, a thin serrated knife or saw can be inserted between the pup and mother and a cut made down towards the roots, taking care not to cut through the stem of both mother and pup.

(b) Stoloniferous

If the pup has long, woody stolons, they can easily be cut close to the mother using secateurs, or a sharp serrated knife or saw. The stolons can then also be trimmed further close to the pup if required, before planting or mounting.

(c) Axial

Some bromeliads form their pups very high up the stem of the plant in the central leaves close to the inflorescence. These must be removed with great care, also using a sharp knife with minimal cutting into the stem of the mother. Most of these plants only produce one or two pups before dying, so it sometimes best to leave the pups in-situ, so they eventually grow through the mother.

(d) Adventitious

Other varieties (mainly in the *Vriesea* and *Alcantarea* genera) produce tiny adventitious or 'grass' pups from the basal area. This normally occurs when the mother plant is very young and sometimes these are the ONLY pups the plant will have. Therefore, it is a good idea to remove them when the grass pups are quite small (between 8-12cm long) and grow them on as you would a seedling in fine mix, with regular water and fertilizer in a warm and sheltered area.

The critical point to remember when removing any type of pup, is NOT to cut into or damage the soft white tissue in the base or stem of the pup or the mother, as this is the 'live' growing tissue that forms roots and leaves. Rotting and/or infection of the base or center of the plant is highly likely if this occurs, or it may take a long time to recover - so take extreme care!

WATERING

Most bromeliads like humidity and moisture to grow well, so it is important to look at their growing environment to ensure they are getting regular water. Broms growing in the garden will normally only need watering during hot summer months. Check the center cups and soil moisture each week to ensure they are not dried out. Rain during the cooler seasons is all they will need to survive, so there is no need to water them at this time unless direct sun is drying them out. For broms in pots, inside or in greenhouses that do not get rain, again regular checking is necessary and some prudent watering may need to be done during the colder months as well - but DON'T overdo it!

Too much water in cold weather can exacerbate fungal growth and promote 'cold damage' marks on the leaves. In winter, keep water in the centre cups and leaves to a minimal level and try to let the pot soil dry out between watering.

As a general rule, water each plant until the cups and leaves just overflow and water runs out the bottom of the pot. Soil should be moist, but not soaking wet and the pot should never sit in water. One other thing to remember in summer is to run your hose well before watering. The water in garden hoses can get very hot in summer and will badly scold and even kill broms.

FERTILIZING

Fertilizer for bromeliads is a much debated and complex issue, as it can have such a huge effect on the appearance of the plant - both good and bad. Most broms grow perfectly well WITHOUT applications of any artificial fertilizer. Remember, the 'tank' types are well adapted to collecting nutrients in their cups and leaf axils. However, it is generally accepted that some fertilizer does help young pups grow roots and get well established -and also helps maturing plants to look their best. The trick is to find the right methods and type of fertilizer for your plants - as many of them have different nutrient requirements and growers have differing preferences as to how certain plants should look.

Without getting too complex, the more fertilizer that is applied - the larger and greener the plants will normally be.

The leaves will probably also be longer and thinner, than if no fertilizer is used. As a general rule, plants with soft, green leaves respond well to fertilizer, whereas shorter, darker/coloured leaves will normally look better with NONE at all. Therefore, look carefully at your types of broms, the colors, sizes and form they have - and decide which ones would benefit from fertilizer and which ones wouldn't. One size (amount of fertilizer) does not fit all! If in doubt, ask an experienced grower.

The best method of fertilizing for beginners is to use 6-12 month slow release pellets (e.g.; Osmocote). Select a type that is medium/low in Nitrogen (N) very low in Phosphorus (P) but quite high in Potassium (K). Look for the 'NPK' ratio, which should be something like 14: 4 : 24 (that is N=14 / P=4 / K=24), where the 'K' ratio is near twice that of the 'N'. Simply mix a small teaspoon of pellets into the soil when planting a pup and from then on a small teaspoon around the soil surface each spring. This is normally sufficient for most broms to look good and grow well throughout the year. The slow release method is less likely to cause problems with form, color change and burning of the plant, than if regular 'foliar spray' feeding is undertaken. The foliar method is best left for more experienced growers or until you are sure how your plants respond to fertilizer in your growing environment.

Disease Control

Thankfully, bromeliads are relatively hardy and generally not susceptible to a wide range of problems, though there are a few common ones you are certainly likely to strike. The "disease" or "rot" we normally see, is actually fungal growth that thrives on high humidity and poor air circulation around the plant. Therefore as a general rule, firstly ensure plants are not planted or kept jammed too close together -and they always have a good air flow around them. Broms in the garden normally do not suffer from this problem as much as those indoors or in greenhouses, where the air circulation can be vastly reduced.

The most common fungal disease (normally phytophthora) will often attack a weak spot in the plant where damage to the leaf has occurred from such things as sun scorch, cold spotting or heavy metal poisoning.

As mentioned in part two, bromeliads do not like ANY contact with treated timber and also exposure to copper and zinc, where the smallest doses can cause severe burning to leaves.

Secondly, always ensure any water run-off from treated timber, galvanized shelving and nails etc., does not land on plants below. After damage occurs, that part of the leaf will die and quickly start to rot, which is where the fungus can attack, enter the leaf and quickly spread. This is very common in the vase (cup) of the tank forming broms, near the base of the outer leaves and sometimes in the very base of the plant at or below the soil surface (known as "Footrot"). The diseased tissue looks brown, grey-bluish, black or transparent in color and often has a bad smell.

For treatment, tip all the water from the plant, cut out any rot and completely remove all loose and rotted leaves. Thoroughly clean and rinse the plant with clean water a few times so no rotted tissue is left behind, then generously spray with a fungicide such as Yates Bravo or Fongarid 25WP at the recommended mix rate for ornamental plants. Allow it to dry out for a few days before watering, then monitor for further attacks and to ensure new undamaged growth is occurring.

Pest Control

Scale sucking insects will attach themselves to any part of a leaf, often on the sheltered underside. They can be fluffy white, grey or small and black and cause yellow/brown spots, which permanently damages the leaf and can look very unsightly. Scale can be physically scraped and wiped off with a cotton ball soaked in methylated spirits, which kill the eggs and microscopic "crawler babies" that are hard to see. Mealy bug can also attack the leaves and is sometimes also seen around the roots if a brom is removed from a pot or the garden. This is also fluffy white in appearance and can be treated as for scale if on a leaf. For root attacks it can only be treated by spraying with a suitable insecticide, or alternatively cutting the roots almost completely off and starting the plant again as if it were a pup. Ensure that any infested potting mix and root material is carefully discarded so it does not spread to other plants.

This concludes an article written by Graeme Barclay of the Bromeliad Society of New Zealand. Although written for growers in the southern hemisphere, the tips also apply to growers in the San Francisco area.

The BSSF is a non-profit educational organization promoting the study and cultivation of bromeliads. The BSSF meets monthly on the 3rd Thursday at 7:30 PM in the Recreation Room of the San Francisco County Fair Building, 9th Avenue at Lincoln Way, Golden Gate Park, San Francisco. Meetings feature educational lectures and displays of plants. Go to sfbromeliad.org for information about our meetings.

The BSSF publishes a monthly newsletter that comes with the membership. Annual dues are single (\$15), dual (\$20). To join the BSSF, mail your name(s), address, telephone number, e-mail address, and check payable to the BSSF to: Harold Charns, BSSF Treasurer, 255 States Street, San Francisco, CA 94114-1405.

OFFICERS and DIRECTORS

President	Carl Carter	carl.m.carter@sbcglobal.net	510-318-2379
Vice President	Dan Arcos	darcos@pacbell.net	415-823-9661
Treasurer	Harold Charns	Harold@States-Street.com	415-861-6043
Director	Roger Lane	rdodger@pacbell.net	650-949-4831
Director			
Director			
Director			



BROMELIAD SOCIETY INTERNATIONAL

The Bromeliad Society International publishes the Journal bimonthly at Orlando, Florida. Subscription price (in U.S. \$) is included in the 12-month membership dues. Please address all membership and subscription correspondence to Membership Secretary Annette Dominquez, 8117 Shenandoah Dr., Austin, TX 78753-5734, U.S.A. or go to www.bsi.org.

Roger Lane

551 Hawthorne Court
Los Altos, CA 94024