



**S.F.V.B.S.**

**SAN FERNANDO VALLEY BROMELIAD SOCIETY**

**FEBRUARY 2021**

P.O. Box 16561, ENCINO, CA 91416-6561

sfvbromeliad.homestead.com

sanfernandovalleybs@groups.facebook.com

**Twitter is: @sfvbromsociety**

**Instagram is: @sfvbromeliadsociety**

---

**Elected OFFICERS & Volunteers**

Pres: **Bryan Chan** V.P. **Joyce Schumann** Sec: **Leni Koska** Treas: **Mary Chan** Membership: vacant

Advisors/Directors: **Steve Ball, Richard Kaz -fp, & Carole Scott-fp**, Sunshine Chair: **Georgia Roiz**,

Refreshments: **Steffanie Delgado**, Web **Mike Wisnev**, Editor: **Mike Wisnev & Felipe Delgado**, Snail Mail:

**Nancy P-Hapke**, Instagram, Twitter & Facebook: **Felipe Delgado**

---

**Saturday, February 6, 2021 ZOOM Meeting at NOON**

President's message

Another month has passed, and it has not started out being a typical cold January month. Quite warm for wintertime. Do not let your guard down, winter is far from being over. Over watering during cold weather can spell trouble for Bromeliads but, during stretches of unusual warm winter days a little bit of watering is appreciated by the plants. Also, if no frost is expected you would be surprised how much direct sun you can give some of what we grow at this time. If temperatures do not exceed 80°F, there are many of the hardier bromeliads that can take full sun now.

Our upcoming Zoom meeting on Feb. 6<sup>th</sup>, 12 noon will not have a program presentation. I've noticed that when we do have a speaker, we socialize less and we never get to our monthly show and tell. February's meeting will be for these very things I feel we are missing. Show and tell is as easy as taking a few pictures and having them on your device that you are using for the zoom meeting. We will be enabling the share screen option for all participants to use with their opened picture file. You will be able to show your pictures just as the presenters do. Another option is you can send the pictures to me. I will show the pictures and you can talk about them. One last option if you have internet in your yard and your device is portable, we can all go out into your yard. Remember that show and tell is not just for something that you are proud of, it can be something that isn't doing well and you want to ask questions.

I do hope to see all your smiling faces on February 6<sup>th</sup>.

## Please Put These Dates on Your Calendar

Here is our 2020 Calendar. Rarely does our schedule change, however, please review our website and email notices before making your plans for these dates. Your attendance is important to us.

**As noted earlier, future meetings may be cancelled.**

Saturday February 6	STBA
Saturday March 6	STBA
Saturday April 3	STBA
Saturday May 1	STBA
Saturday June 5	STBA
Saturday July 3	No meeting?
Saturday August 7	STBA
Saturday September 4	STBA
Saturday October 2	STBA
Saturday November 6	STBA
Saturday December 4	STBA

### **STBA = Speaker To Be Announced**

***Speakers*** Let us know if you have any ideas for Speakers about Bromeliads or any similar topics?

We are always looking for an interesting speaker. If you hear of someone, please notify **Joyce Schumann** at 818-416-5585 or [ropojo@pacbell.net](mailto:ropojo@pacbell.net)

## *Member-contributions of photos or articles*



*Billbergia flowers*



*Aechmea flower*



*Aechmea flower*



*Deuterochonia flower*



# Taxonomic Tidbits: *Dyckia* Updates.

Mike Wisnev, SFVBS Editor ([mwisnev@gmail.com](mailto:mwisnev@gmail.com))

San Fernando Valley Bromeliad Society Newsletter – February 2021.

Photographs by Wisnev unless noted otherwise.

---

John Martinez gave an excellent presentation on *Dyckia* earlier this month at our Zoom Club meeting. I enjoyed it so much, that it prompted me to revisit the genus for this month's Newsletter.

It might surprise many of you to know that there are now approximately 176 *Dyckia* species. As I scan the list of these species, I only recognize the names of about 25 of them! Indeed, one wonders if most hobbyists have more than a few species, such as *D. platyphylla* or *marnier-lapostollei*. Two were recently named last year, *D. maranhensis* and *oscarii*. I certainly had never heard of them. Thus, despite our Club's well deserved reputation for its love of the genus, most of the interest remains in hybrids, as many of them are spectacular compared to the relatively plain species.



*Dyckia marnier – lapostollei*. I have found it is one of the few *Dyckia* that may suffer in our “winters” here in Los Angeles.

Apart from an early article distinguishing *Hechtia* and *Dyckia*, I have pretty much avoided discussing the genus. In a nutshell, the latter are found exclusively in South America, while the

form grow primarily in Mexico with a few species extending north into Texas and south into Central America. Their flowers are dramatically different. If you are interested in more details, please see the October and November 2013 Newsletters.

Another very similar genus is *Encholirium*. Forzza distinguished this genus from *Dyckia* based on whether the inflorescence is lateral, as is the case for *Dyckia*, or terminal as is the case for *Encholirium*. Various species were moved from one of the genera to the other based on this distinction. Apart from this distinction it may well be impossible to tell the genera apart.



*Encholirium subsecundum* (Baker) Mez. Notice how the inflorescence comes out of the middle of the rosette.

Digital Image © Board of Trustees, RBG Kew <http://creativecommons.org/licenses/by/3.0/>



There are other common features for most *Dyckia* in addition to their lateral inflorescences. These include “the presence of nectaries on the sepals; filaments connate and forming at the base a common tube with the petals which is usually referred to as petal–staminal ring; and peduncle bracts different from leaves.” Pinangé et al. at 40.

Yet another similar genus is *Deuterocohnia*. Species of this genus are known for the fact that the same inflorescence flowers for more than one year, a fairly unique characteristic.



A large clump of *Deuterocohnia meziana* at the Huntington Botanical Garden.

Most of my articles have discussed genera, and it is rather difficult to write much about a genus without reviewing articles by botanists discussing the genus and/or its subgenera. In this respect, *Dyckia* is like the completely unrelated genus, *Guzmania*. Both have well over 150 species and no subgenera at all. Other than discussing individual species, it is difficult to say much about the genus.

Three articles in the last decade have begun the difficult process of addressing the genus. They provide no answers, but do give some insights worth sharing.



Perhaps the most interesting discovery is one that has been noted in other studies – geography is more important than morphology in many cases. More and more studies find that seemingly related species separated by long distances are not in fact that closely related. In this case, two studies have found that “three main groups could be recognized: (1) species from north-eastern Brazil and Minas Gerais; (2) species from the central region (mid-western) of Brazil; and (3) species from southern Brazil and from the lowlands of Paraguay and Argentina.” Pinangé et al. at 40.



Two commonly cultivated species: *D. jonesiana* (left) and *D. platyphylla* at HBG (right). Interestingly, one of the studies found the two are fairly closely related, while another found that *D. platyphylla* and *D. marnier-lapostollei* are closely related. All three are found in Central Brazil.

These three geographical groups align fairly well with different clades of *Dyckia*, but not entirely. In addition, members of each of two of the groups show an interesting similarity. For example, most of the species in Paraguay, Argentina and southern Brazil have yellow flowers, while those in the other are predominately orange. Members in the northeast and Minas Gerais generally have completely connate filaments, while the other two groups have free filaments above a common tube.

An earlier study provided more information about the history of the development of the genera with the Pitcairnioideae subfamily. *Pitcairnia* appears to be the oldest genus, with its predecessors developing more than 10 million years ago (Mya). *Fosterella* and *Deuterocohnia* developed next. “The ancestor of *Dyckia* and *Encholirium* presumably became separated from *Deuterocohnia* between 8.5 and 5.6 Mya, migrated from the Bolivian Andes to the east and

started to proliferate in Brazil between 5.6 and 4.6 Mya.” It then appears that *Dyckia* broke off southern Brazil, and radiated in all directions to its current circumscription about 3 Mya.



A very unusual *Dyckia*, with its needle like leaves. *D. chlorostaminea*. As noted in Pinangé et al., yellow flowered *Dyckia* species are found in Argentina and southern Brazil. This species is found in the latter.

Krapp et al. had numerous other interesting points. For example, one problem in investigating the genus is that many of the species are quite poorly known, consisting of a few old specimens. Another is the fact that the genus is fairly young, and as a result, many of the species may not be particularly different genetically.

They also noted that many of the species are found at altitudes over 1000m at a time of serious and frequent climate changes. As the climate warmed, the species may have appeared at lower altitudes and had more opportunity to hybridize; as the climate cooled, the genetic mixing was less likely to occur.

*Dyckia* seeds are rather heavy, and unlikely to be dispersed long distances by wind. In contrast, the pollen may travel much longer distances. This may make phylogenetic analysis more difficult as plastid and nuclear DNA show different phylogenies.



The one piece of good news is that the studies have shown that *Dyckia* is a monophyletic group, that is, all *Dyckia* species are more closely related to each other than they are to species of other genera.



One of the prettiest species – *D. fosteriana* at the HBG. Many of our well-known hybrids have this species in their parentage.

The bad news is that the same is not clearly true for *Deuterocohnia* and *Encholirium*. Krapp et al. suggests both of the latter are paraphyletic. If the results of Krapp et al. are correct, some species of *Encholirium* are more closely related to *Dyckia* species than to other *Encholirium* species. In that case, botanists have two possible approaches: (1) they can break these other genera apart into different genera, or (2) they can combine the different groups together with other genera so that the group is now monophyletic.

In fact, Silva et al. (2019) study took the latter approach. On January 7, 2021, the Encyclopaedia of Bromeliads listed 16 *Deuterocohnia* species and 37 *Encholirium* species. While not online, Silva et al. (2019) transferred about 40 of these 53 species into *Dyckia*! It does not appear the results have been well accepted yet, but it may be too early to if others agree.

Diego S. B. Pinangé, Florian Krapp, Georg Zizka, Daniele Silvestro, Elton M. C. Leme, Kurt Weising, Ana M. Benko-Iseppon, Molecular phylogenetics, historical biogeography and character



evolution in *Dyckia* (Bromeliaceae, Pitcairnioideae), *Botanical Journal of the Linnean Society*, Volume 183, Issue 1, 1 January 2017, Pages 39–56, <https://doi.org/10.1111/boj.12489>.

Krapp, Florian & Pinangé, Diego & Iseppon, Ana & Leme, Elton & Weising, Kurt. (2014). Phylogeny and evolution of *Dyckia* (Bromeliaceae) inferred from chloroplast and nuclear sequences. *Plant Systematics and Evolution*. 300. 1591-1614. 10.1007/s00606-014-0985-0.

Silva, J.G.; Silva, F.S. & Forzza, R.C. (2019) Does nomenclatural stability justify para/polyphyletic taxa? A phylogenetic classification in the xeric clade Pitcairnioideae (Bromeliaceae). *Systematics and Biodiversity* 0(0): 1–24.



Another yellow flowered one – *D. niederleinii* at the HBG.