



S.F.V.B.S.

SAN FERNANDO VALLEY BROMELIAD SOCIETY

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

sfvbromeliad.homestead.com

[sanfernandovalleybs@groups.facebook.com](https://www.facebook.com/sanfernandovalleybs)

OFFICERS

Pres: **Mike Wisnev** V.P.: **Mary K. Carroll** Secretary: _____ Treasurer: **Mary Chan**
Membership: **Joyce Schumann** Health & Wellness: **Georgia Roiz** News & Web Page: **M. Wisnev**
Directors: **Steve Ball, Bryan Chan, Richard Kaz -fp, Dave Bassani-fp**

next meeting: **Saturday Dec. 5, 2015 @ 10:00 am**
Sepulveda Garden Center 16633 Magnolia Blvd. Encino, California 91316

ANNUAL HOLIDAY BRUNCH

SATURDAY DECEMBER 5th

9:00 – Set-Up and Deliver all food dishes (Coffee & Donuts)

10:00 – meeting starts with drawing

10:15-11:15 – Program: '**Variegated Bromeliads**' by Barry Landau

11:30 – Pot Luck Brunch served

12:30 – Member Gift Exchange and Club Holiday Plant drawing

(Normal \$1.00 plant raffle will resume in January)

1:00 – 2:00 – Clean up; we will need all hands

RSVP **to Kathleen** or leenest@aol.com or 818-402-6031

Taking a look back at last month..... attendance was good and Larry's program answered a lot of questions, especially about seed growing and propagation; sorry if you missed it. I missed a lot of the program by overseeing lunch but I'm sure I will see it at one of the other Bromeliad club meetings. However, I heard great reviews from our members. We will schedule him again in 2016. We had donations to the Mini-Auction from several members and very good participation in the Show-N-Tell and a special thanks to those who contributed to the Raffle. I'm sorry I don't have the list with me so I won't mention the names.

We are grateful for 2016 Executive Officers voted in and equally grateful for the members who accepted volunteer positions.

• **New 2016 Elected Officers are:**

President: Mike Wisnev
V-President: John Martinez
Secretary: Leni Kosko
Treasurer: Mary Chan
Membership: Joyce Schumann
Advisor/Directors: Bryan, Richard,
Mary & Steve

We are pleased to announce volunteers

Editor is: M. Wisnev & Mary K.
w/ Nancy P-Hapke to continue snail mail
Raffle: Steve Rudolph
Refreshments: Kathleen Misko
Sunshine Chair: Georgia Roiz
Facebook : Barry Landau
Webmaster : Mike Wisnev

President's Message

Memo From: Martha Goode, BSI Affiliate Chair **To:** All BSI Affiliates **Subject:** 2016 World Bromeliad Conference

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 deliboy@comcast.net of your intent to donate. All donations will be recognized in 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. Hope to see all of you in Houston - Bonnie Boutwell, BSI Vice President

Hope to see you all at the next meeting by 10:00 am...

Mike Wisnev

Announcements:

- **Holiday Plant Gift Exchange** – Please bring a wrapped plant (a Bag will be okay) or plant related item to the party. Give something of quality, something you would like to be on the receiving end of. If you don't have something decent you want to part with, you don't have to participate in the gift exchange.
- **Happy Birthday** to Pat Byrne
- **Need your help to -** Set-up and or clean-up for the Brunch –
RSVP **to Kathleen** or leenest@aol.com or 818-402-6031

Gregg DeChirico is holding a Holiday Plant Sale Open House. Sat & Sun, Dec 12 & 13 / 10am-3pm both days. Gregg's Greenhouse (**inside**) **Island View Nursery** / 3376 Foothill, Carpinteria, CA 93013

Bromeliads, Bulbs, Caudiciforms, Orchids, Succulents and more...

Plants big or small will make a perfect gift for the plant lover in your family!

Need additional information: contact Gregg at u4banut@yahoo.com,

Participation Rewards System – (Normal \$1.00 plant raffle will resume in January)

- No free participation raffle tickets this month; there won't be any \$1.00 raffle plants.
- World Bromeliad Conference – See the flyer on page 19

Please pay your 2016 Membership Dues

NEED TO RENEW ?.....

Pay at the meeting to: Membership Chair – **Joyce Schumann** or Treasurer - **Mary Chan**
or Mail to: SFVBS membership, **P.O. Box 16561 - Encino, CA 91416-6561**

Yearly Membership Dues **\$10.00** for a single or couple

Please Put These Dates on Your Calendar

Here is our 2016 Calendar. As our schedule is always subject to change due to, please review our website and email notices before making your plans for these dates.

Saturday Jan 2, 2016	<i>Gregg DeChirico</i>
Saturday Feb 6, 2016	<i>Nels Christianson</i>
Saturday Mar 5, 2016	<i>Guillermo Rivera</i>
Saturday April 2, 2016	SFVBS Regular meeting - STBA
Saturday May 7, 2016	SFVBS Regular meeting - STBA
Sat. & Sun. May 7-8, 2016	LaBallona Bromeliad Show & Sale
??? Sat June 4, 2016 ???	??? Regular meeting ???
Sat & Sun June 11-12, 2016	SFVBS Show & Sale w/ the Cactus Club
Saturday July 2, 2016	SFVBS Regular meeting - STBA
Saturday August 6, 2016	<i>Andy Siekkinen</i>
Sat. & Sun. Aug 6-7, 2016	So. Bay Bromeliad Show & Sale
Saturday Sept 3, 2016	SFVBS Regular meeting - STBA
Saturday Oct 1, 2016	SFVBS Regular meeting - STBA
Saturday Nov 5, 2016	SFVBS Regular meeting - STBA
Saturday Dec 3, 2016	SFVBS Regular meeting - STBA
Saturday Jan 7, 2017	SFVBS Regular meeting - 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 John Martinez johnwm6425@gmail.com or Mary K. at 818-705-4728 or e-mail rango676@aol.com <>

*We wish you and your family a
Happy, Healthy and Safe Holiday season*

Taxonomic Tidbits –

Distinguishing Aechmea and Portea, Part 1; artificial keys.

By Mike Wisnev, SFVBS President (mwisnev@sbcglobal.net)

San Fernando Valley Bromeliad Society Newsletter –December 2015

The Tidbits articles in May and June of 2014 discussed *Aechmea* and their inflorescences (from here on, I will often abbreviate it as Infl). At the risk of overload, here are two very similar looking Bromeliads. Are they *Aechmeas*? You will have to read on to find out.

So how do you identify these plants? Unfortunately for beginners, telling plants apart can be pretty hard. But the longer you are in the hobby, the easier it gets. For example, the first few *Dyckias* and *Hechtias* you see look almost the same, but after seeing a hundred they seem pretty easy to tell apart. You just know, even though you may not be able to easily articulate the differences. And the longer you are in the hobby, the more likely it is you own the plant, or have at least seen it.



Of course, even experts sometimes see one that is harder to tell. This is true for lots of genera. *Billbergias* and *Aechmeas* generally seem pretty easy to distinguish, but without an Infl., some *Aechmeas* can look a lot like *Billbergias*.



grown identically the two look different.

There is another problem. When I noticed the one on the left first starting to develop an inflorescences, I didn't remember what the one on the right was, but I did remember the two didn't look very much alike. I like to photo plants over time. Here are the same two plants three months earlier.

Wow, they didn't look remotely the same in May. The sun and development of the Infl have really changed the one on the left. This demonstrates one reason it can be so hard to ID a plant. Over different seasons, they can look quite different. Add a few years of growth, or different growing conditions or different growers, and the same plant can look enormously different. Plus, in many cases, the species can be variable, so that even when

Wait a second – do I hear someone out there saying the one on the left is a *Portea*. In fact, it is labeled *Portea* ‘Pink’. I can’t find any reference to *Portea* ‘Pink’ on the web. This isn’t surprising – there are tons of unnamed *Portea* hybrids. Mulford Foster hybridized them extensively and apparently didn’t register any of them.

A quick detour is in order here. Mulford Foster (1888-1978) was one of the giants in the Bromeliad world. Not only did he travel extensively and collect over 200 new species, he co-founded the Bromeliad Society back in 1950. You can read more about him, and other Bromeliad giants, in Paul Isley’s *Tillandsia* book. Quite a few plants have been named in his honor, and even one genus – *Fosterella*.

So, how can you tell my plant is a *Portea*? Of course, that assumes it actually is one, as the label said. But, for the beginners, you will learn that sometimes labels can be wrong. Plants may be mislabeled for different reasons. The grower or supplier or vendor might have misidentified it. It might be from an enthusiastic hobbyist, like me, who tried to ID it. And, in an all too common occurrence, someone takes out the tag to see what it is, and puts it back in the wrong pot!

***Portea*.** There are currently eight *Portea* species, and all are from the eastern coast of Brazil. Aechmeas grow all over South and Central America, but lots are from eastern Brazil. So, even if you know your plant is from eastern Brazil, it could be an Aechmea or *Portea*. Without an Infl, about all I can say is that, based on an incredibly small sample, generally *Portea* are taller than Aechmeas, and a bit less spiny, and perhaps stiffer leaves. The plant on the left is taller, and not overly spiny, so that fits.

Often one way to distinguish two genera is to look at the key for the family. But the Smith and Downs key for Bromelioideae is based on Infl. In many cases, your plant hasn’t flowered, so the key is of no help in this situation.



If you have the space, *Porteas* make great landscape plants. The picture below is from the Los Angeles Zoo. Neither plant is labeled. The one in front, with the denser redder flowers has been tentatively ID as ***Aechmea distichantha***, and the taller one behind it as ***Portea petropolitana* var *extensa***, perhaps the most commonly seen *Portea*.

Absent an inflorescences, the description of the two genera doesn’t aid a lot either – both descriptions are very brief, and contain overlapping characteristics. According to Smith and Downs, p 1767, *Aechmea* are of medium stature, often with basal rhizomes, and their leaves are densely rosulate or fasciculate, usually “spinose-serrate.” What about *Porteas*? Their description says “Leaves rosulate, lepidote; blades ligulate, serrulate.” p 2038. There are much lengthier descriptions for each species, but that is all it says about the two genera themselves (plus a lot about the inflorescences).

This is a common problem when comparing descriptions – while generally the same features are described, different aspects of them are often listed. So while we know that *Aechmeas* are of medium stature with basal rhizomes – there is no corresponding entry for *Porteas*. Another text says that *Portea* have long leaves, so that gives one comparison – tall v medium stature. We also now know *Porteas* have ligulate and lepidote leaves, but we don't know if *Aechmeas* have them or not.

In addition, the features often overlap. *Aechmeas* leaves are in a rosette or fasciculate, while *Porteas* are in a rosette. The plant above is a rosette, so no help there. For that matter, when you look up fasciculate, the definition seems pretty similar to a rosette – though it seems a rosette is tighter.

Aechmeas are spiny or serrate – the latter term is basically curved spines. *Porteas* are serrulate, which is the same as serrate but smaller. So, like I said, *Porteas* are generally taller than *Aechmeas* and have smaller spines.

One way to hopefully find more is to track down the original description of the more recently described genus. You would expect the author to say something as to why this was a new genus, and how it differs from other similar ones. But *Porteas* were described in 1856, and I haven't looked for it.

Close up of *Portea* flowers and berries at L A Zoo, identified as *Portea petropolitana* var *extensa*. The inflorescences can last a long time – probably at least five months or more. The photo on the left was taken July 2 (this photo and one above courtesy of Dylan Welsh); the berries on the right on October 2.2

Portea petropolitana can vary quite a bit. There are three varieties. Two have long branched Infl.; of these var *petropolitana* has short pedicels, while var. *extensa* has long ones. Var. *noettingii* has pedicels that are longer than its very short branches.



Recall that the Key to the Bromeliad Genera was based on inflorescences (In 2008, Derek Butcher updated the Smith's latest key. You can find it on the FCBS site. <http://www.fcbs.org/index1.html>) Since *Portea* 'Pink' bloomed, you can check if it keys out to *Portea*. When you look at the key, *Portea* have the following characteristics. Like many other genera, the sepals are asymmetric. Of these, some, like *Portea* and also some *Aechmea*, have pedicellate flowers and some don't. Within this group, *Portea* are further distinguished as having "Sepals more or less connate, long-mucronate; petals appendaged. E. Brazil." Thus, *Portea* are known for their pedicellate flowers with connate mucronate sepals. Connate means the sepals are joined, which you can more or less see in this picture below. Most also have blue petals. *Portea* Pink matches pretty well. Later, the article will describe keys in more detail.

***Portea* Pink** inflorescence to the right, and flower below.



Portea petropolitana and *Portea alatisepala* are perhaps the two *Portea* most commonly seen in cultivation, and they look a lot alike. According to Harry Luther, "*Portea alatisepala* somewhat resembles the commonly cultivated *Portea petropolitana* but generally is smaller with broader, softer, often somewhat undulate leaves. Leaf color varies from green to red and the redder clones resemble *Portea kermesina*. The inflorescence is usually shorter than *Portea petropolitana* and the sepals are shorter, the petals are longer. For growers with restricted space, *Portea alatisepala* is probably a better choice than *Portea petropolitana* and its varieties.' See "Introducing *Portea alatisepala*" by Harry E. Luther in J Brom Soc 50(5): 240. 2000

Like *Aechmea*, *Portea* inflorescences can vary. Some have a lax Infl., like *P petropolitana*, shown above, and *Portea alatisepala*. Others have very dense ones, like *Portea kermesiana* and *Portea grandiflora*, shown to the right.



Portea grandiflora photo by Bromeliario Imperialis



Portea nana
photo in J Brom Soc 53(3): 118. 2003

Portea nana

P nana is one of the smaller *Portea* and has a fairly tight cylindrical Infl. It also grows on relatively long stolons.



Portea silveirae Photo by Guess

As noted, there are currently eight *Portea*. At one time, there were ten. But one has now been moved to *Canistrum* and another to *Aechmea* (*A leptantha*). So even the experts have trouble figuring out what some of them are.



***Portea* type plant, described in 1856.**

Artificial Keys. This part of the article shows how an “artificial” key works by showing how *Porteas* key out. The key is sort of a combination of an outline and a flowchart. It effectively asks a series of questions, and depending on the answer, you move to a different part of the key, where you get an answer or more questions, until you eventually get an answer. Sometimes the answers to each question are easy to figure out, and in some cases, very difficult for various reasons.

Keys can be organized in different ways. Some have dual entries for each number that can appear in different places in the outline. For example, the first line of the Smith & Downs key to the Bromelioideae subfamily in their 1979 monograph is “1. Flowers laxly arranged” About 40 lines later, it says “1. Flowers in dense spikes” So depending upon whether your plant’s flowers are lax or dense, you go to that part of the key. Others have both entries together, and direct you to different places depending upon the answer. For example, it might say “1. Flowers lax – go to 2. Flowers dense, go to 34.” The end result is the same.

Why is it called “artificial?” This means the key doesn’t attempt to group the plants by virtue of being related. The fact that two genera have lax flowers doesn’t mean they are more related to each other than another one with dense flowers. It is just a series of questions to try to separate them. As such, two authors could have entirely different keys for the same group of plants.

To illustrate how to work with a key, let’s see how *Portea* Pink keys out under the Smith and Downs key. The key question in the key is whether the inflorescence is dense or lax. If you look at the pictures of *Aechmeas* in the articles last year, you see that many are much laxer than this one, and others are much denser. This problem also arises a lot – many features have a continuum, and it is hard to tell where to put the plant in many cases. I’d say this one is closer to dense than lax, but not by much. You might disagree with how I assess it – so then we might get different answers for the same plant.

Once you decide it is dense, it gets pretty easy. Continuing down the key, the next question is whether the Infl is simple or compound. Here mine is compound – it has lots of branches. Next, do the flowers have pedicels, or are they sessile? Mine has pedicels. This rules out *Aechmea*. *Aechmeas* that have a dense compound Infl are either pine coned shaped or have flowers without pedicels. Well, my plant isn’t pine cone shaped, and the flowers have pedicels. So it isn’t an *Aechmea*.

The key shows three different genera with a dense compound Infl and flowers with pedicels. There are more questions to tell them apart. Most surprisingly, the three are *Portea*, *Neoregelia* and *Bromelia*! Since I know my plant looks nothing like a Neo or *Bromelia*, I don’t have to worry about those. That is a feature of artificial keys – they don’t necessarily group similar looking or related plants, but rather ask a series of questions to get an answer. And since this particular key focuses on Infl, the leaves are ignored.

So it is a *Portea*, at least according to the key and the label. Without a DNA test, or a expert, you can’t really do much to identify your plant.

As keys go, that was pretty easy. There weren’t all that many questions, and the features used were relatively easy to see and distinguish. Often it is much harder, and you don’t find an answer.

If you were sure of your answers above, your work would be done. But here I decided the Infl was dense, not lax, but I wasn’t positive. What if it is considered lax? Thus, I need to run down the side of the key for a lax compound Infl, and see what I get. (I was curious whether Smith would have thought my plant was dense or lax, so I looked more at the *Portea* section of Smith and Downs. *Portea filifera* has an Infl that is about as dense as mine. They described it as “sub-dense,” which means it is not quite dense. But on the key, *P filifera* was on the lax side. So you can see how it is often hard to determine how to address some of the questions in a key.)

This side of the key is actually shorter, but a lot harder. There are 8 genera, including *Portea*, listed with a lax compound Infl. And *Aechmea* shows up twice. I am almost sure two of them don’t apply, so I will skip these steps. To distinguish the others, the key from Smith and Downs Monograph, Part 3, p 1494 (1979) is shown below (the quoted material is shortened a leaving out locality information and a few terms):

“13. Petals naked.

14. Stamens naked. – *Streptocalyx*.

14. Stamens appendaged. - *Androlepis*.

13. Petals with appendages.

15. Sepals mucronate or pungent.

16. Flowers sessile. – *Aechmea*.

16 Flowers pedicellate.

17. Sepals free; *Aechmea*.

17. Sepals connate;*Portea*.

15. Sepals unarmed ...

18. Petals regular*Quesnelia*.

18. Petals zygomorphic: *Billbergia*.”

Here are some pictures of the *Portea* Pink flower



The first test, in 13 above, is whether the petals have an appendage or not. Remember the distinction between *Tillandsias* and *Vrieseas* – *Tillandsias* don’t have ligules while *Vrieseas* generally do. Look at the picture on the right above. At the far right you can see a tiny flap at the bottom of the petal. Here it is called a “scale;” while too small to see here, the scale is fimbriate (which means fringed) at the top. So mine has an appendage. Thus, we can skip #14.

The next step (15 on the key) is whether the sepals come to a point or are unarmed. In the picture on the left above, the red part is the sepal. On the top part of the upper sepal you can see where I have ripped the point off – the bottom sepal shows how it looks more naturally. So mine is armed.

Next (16) - are there flower pedicellate? Well, we know that is yes.

The last test (17) is whether the sepals are free or connate? (Actually, the key also has geographical locations and pollen characteristics as part of this test! Not very helpful for us.) The article on *Dyckia* flowers discussed “connate” – it means connected and forming a tube. Here the sepals are connate. If you look again at the sepals, they are only separated apart at the upper third or so. The bottom 2/3 are all one piece – thus, they are connate sepals, as opposed to “free” sepals.

As a result of all this, the key tells us plants with this combination of features (lax, compound, appendaged, pedicellate with armed and connate sepals) are ----- *Porteas*!

This turns out very well. Whether the Infl is lax or dense, the key shows it is a *Portea*. In many, and probably most, cases, you would get a different answer depending on whether it met a condition, such as whether the flowers are lax or dense. Since sometimes you aren't sure, and sometimes the key uses microscopic features, you may not get an answer, or you may end up with an answer you know is wrong. So while keys can be very helpful, they don't always work as well as one might hope.

Hopefully, this gives you a sense as to how to read an artificial key to help determine what your plant is. There are also keys for species, but typically they are even harder as they focus on smaller parts and the plants are more related than those of different genera.

Are *Porteas* a good genus? The DNA studies are mixed on this. At least three fairly recent studies (a 2010 *Aechmea* study, a 2013 Bromelioideae study, and a 2015 *Portea-Gravisia* study) indicate *Porteas* are a good genus, though some *Aechmea* species might need to be transferred to *Portea*. Another recent 2015 study suggests *Portea* should be divided into two groups. So, once again, more studies are needed.

Two of these studies indicated *Aechmea marauensis* was likely a *Portea*. I had never heard of it, but was curious if it looked like a *Portea*. Here it is to the right. It looks like many of the pictures above. Its description says it has mucronate and connate sepals, but its flowers aren't pedicellate, which is presumably why it was treated as an *Aechmea*.

Lastly, I still haven't told you about the *Aechmea* on the right in the first two pictures of this article. Well, it isn't one – it is *Androlepis 'Paradise.'* These plants can really be hard to tell apart!



Taxonomic Tidbits –

Bromelias, colors and descriptions

By Mike Wisnev, SFVBS President (mwisnev@sbcglobal.net)

San Fernando Valley Bromeliad Society Newsletter –December 2015

The July 2014 Newsletter had a Tidbits article titled. “Will the real *Bromelia balansae* please stand up? You can find the article on <http://sfvbromeliad.homestead.com/Newsletter.html>. That article addressed *Bromelias serra, balansae, sylvicola and penguin* and started out by stating “I am confused about this topic, and I am sharing my confusion about this relatively obscure genus.” Nothing has changed; in fact, I may be more confused now than before.

In any case, a recent Bromeliad Journal describes a new *Bromelia*, named *B tocanтинense* found in Ponte Alta do Tocantins, Brazil. See J. Brom Soc. 65(1) 58. 2015. The authors, Eddie Esteves Pereira and Eric John Gouda, describe the new species and compare it to its relatives, *B antiacantha*, *B balansae* and *B eitenorum*. There are lots of pictures of the new species, and one each of the three others. There is also a chart describing the various differences among the four of them.

But this article is only tangentially about *Bromelia tocanтинense* or even *Bromelias*. Instead, the various pictures and descriptions of the petal colors intrigued me. Specifically, the petals of the four species are described as “red with white margins” (*tocanтинense*), “deep violet” (*balansae*), “dark purple to white at base” (*eitenorum*) and “purple” (*antiacantha*). Id at 67.

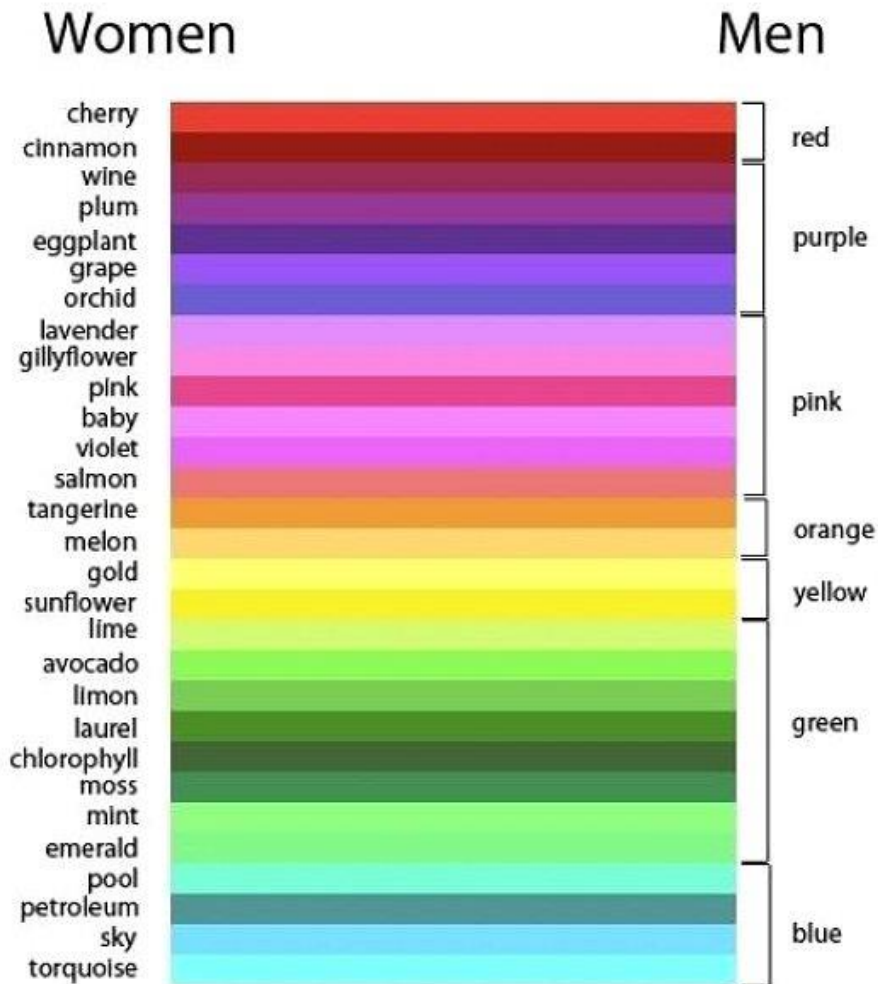
I fully confess my limited familiarity with various shades of colors. While I am not color blind, I tend to describe colors pretty basically, sometimes modified by “light” or “dark.” There are a dizzying number of color terms I don’t pretend to know, or remember. Magenta, teal, crimson, scarlet, lavender, fuschia ... the list goes on. Sometimes I think I know what one is, but when I look on the computer, I find it is different than I think. In fact, my ignorance extended to not realizing (or remembering) there is a difference between purple and violet.

So this somewhat different article is a bit about color (and words), and the difficulty of using them to explain things. There are really two interrelated issues for both, if not more. The first is how the color or word is defined, or described. The second is the degree to which each of us perceives and uses the color or word.

For example, sometimes if you look up a botanical term, you will find it defined a bit differently in different references. For example, one might say A is a synonym of Y, while another might distinguish the two a bit (or a lot more). So if I see a plant is A, what exactly does that mean – is it the same as Y, or is it a bit different. Even if all references agree on the same meaning, that doesn’t necessarily mean that each of us will use the term the same way or even correctly for that matter.

It turns out that purple and violet are different, though not that different. Violet is actually a “spectral color,” meaning that if you hold up a prism and let the light refract through it to get a rainbow like effect, one of the colors is violet. In contrast, purple isn’t spectral, but is a “composite color” that is a mix of violet and red.

Names of the Colors



So here, apologies to all the menfolk, is a good illustration of colors, and how differently we can perceive them. This image is taken from <http://dailypicksandflicks.com/2012/01/07/daily-picdump-356/names-of-the-colors-men-vs-women/>. Beside laughing out loud when I saw this, I felt a lot better about my ignorance; after all, based on the above, men aren't familiar with the color violet.

So now you can see the differences between purple and violet. But is this chart accurate?

I googled "purple vs violet" and hit images. There were a stunning number of results, and not always the same.

Here are some of the ones I saw.

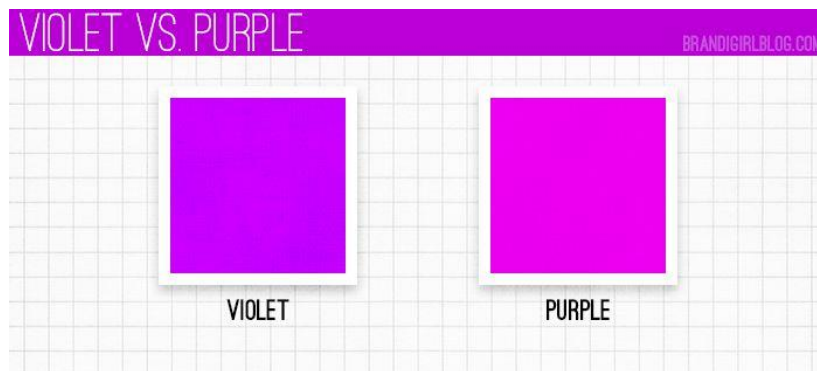


<https://designcollagebydavidc.wordpress.com/2013/12/16/violets-these-days-and-purple-haze-by-david-chronister/>
 (color pic from <http://tinypic.com/view.php>)



<http://www.fili>

[mciler.com/different-shades-of-purple/different-shades-of-purple-simple-decoration-18-on-home-gallery-design-ideas/](http://www.filiciler.com/different-shades-of-purple/different-shades-of-purple-simple-decoration-18-on-home-gallery-design-ideas/)



<https://www.pinterest.com/pin/365495325984048413/>



<https://s-media-cache-ak0.pinimg.com/736x/c4/04/bc/c404bc33a5a045cec1699a432885fb06.jpg>

Try it yourself – you will find lots more.

So, you can see that purple and violet are pictured quite differently in the sites above. It is generally safe to say that they all show a purple color that seems to have more red in it than the violet colors. But in some it is darker and others lighter.

Back to Bromeliads, and *Bromelias*. If each of the folks who did the charts above were asked to describe the color of a *Bromelia* petal, they would likely give a different answer. And so would you if you were looking at the particular chart. Now I am starting to feel pretty good about my lack of color knowledge. While lots of folks think they know their colors, they seem to disagree with other folks. Even those bold enough to post on the web.

You can add more elements of confusion. I don't know much about these topics, but have read that cameras often can't capture certain colors particularly well. And we all know that bright or dull light will provide a different color. And you might not know that computer images also are somewhat limited by the type of colors they can convey. Those that print this article out might find that their printer shows each shade a bit differently than the computer screen. I suspect printers by different manufacturers might show slightly different shades as well.

This led me to wonder if there is an official color chart. From what I found, rather quickly, there isn't. Wikipedia suggests that there are all sorts of charts used for various purposes, many created by various manufacturers of paint or other similar products. There is something called IT8 which is "a set of American National Standards Institute (ANSI) standards for color communications and control specifications." I am not sure I quite follow, but it appears there are different standard for different technologies like diecutting systems, scanners and film dyes. I also remembered that *Tillandsia* II by Paul Isley's III had some information about color. On p 273, you can find a great a Horticultural Color Guide.

Since we are all so dependent on the computer, one site has what it calls HTML color names. It asserts that all "all modern browsers support the following 140 color names".

http://www.w3schools.com/html/html_colornames.asp Using this set of colors, I would still say the petals of the plants labelled *B balansae* at the HBG are red, not violet or purple. Since this set of colors is easily found on the web, I will try to use them as my standard in the future.

And for those ladies and gents who really like different color terms and random tidbits of information, the HTML colors seems to show fuchsia as identical to magenta, both having the #FF00FF code.

Returning to the *Bromalia tocaninense* article, I wouldn't say that either the picture of *B balansae* or *B antiacantha* showed a purple color, as stated by the chart in that article. To me, both appear a lot more red under all of the above color charts.. Is this simply a case of the written description arguably misstating the color? In fact, it is more confusing than I first realized. If you look at my earlier article on *Bromelia*, you will see that *B balansae* is described as having a dark violet petal, just like the chart in the *tocantinense* article says. Yet the picture of *B balansae* in the *Bromalia tocaninense* article is much like the HBG plant in my article, which I describe as "red, not blue or violet." I am not sure what to make of this.

This color problem wasn't really relevant for most early botanical descriptions. I have heard that the color of the flower is not particularly important for determining many species. Frankly, I am not sure this is true – I have never seen any study addressing the correlation between flower color and species. Like many plant features, some species have more than one flower color and others have only one. In some genera, the species have very similar flowers, while other genera have more variable ones. What is true is that plants were often described based on dried flowers which simply don't show the original color. As a result, the descriptions often don't say anything about the color of the sepals or petals.

Similar problems can exist with other aspects of a description. If you go back to the beginning of this article where I quote the petal colors of the four *Bromelias*, you will see that *B. tocanтинense* is the only one that seems to have white margins. But when you look at the pictures, all four species have white margined petals. In this sense, the descriptions seem a bit inaccurate.

While not sure, I suspect this is because most authors describe other plants from the botanical description for that plant. Thus, if someone describes a new *Bromelia* X as having fuschia colored petals, it is likely that future articles will state it has fuschia petals even if they in fact are fuschia with white margins. So, when you see a chart comparing different species, it is possible that each was described by a different person. That person may omit something or emphasize something that a different botanist ignores. As a result, it is sometimes difficult to compare different descriptions since they were prepared by different people.

These problems in descriptions can make it very difficult to determine what species a given plant really is. Is the flower of *B. balansae* red, violet or purple? Or is it variable, either among different clones, or stages in development?. Is the shape of the inflorescence or various flower part similarly variable? Sadly, I have no answers, only questions!

For all you who have made it to the end, I figured you deserve some modest reward, so here are some pictures of *Bromelias*. From the latest Bromeliad Journal here is ***B. tocanтинense***. J Brom Soc 65(1) at 60, 2015.



Figure 3. A flowering specimen of *Bromelia tocanтинense* at the type locality with a dense inflorescence. Photo by Eddie Esteves Pereira.



Here are two pictures of *B antiacantha*. Are they both really that species – can it have differently colored flowers? Or do they change over time?

from Bromeliads of Brazil



The same issues seem to apply regarding the following two pictures of *B goyazensis*. *The first by an unknown photographer, the second by Monteiro. Is one mislabelled or can the flowers vary that much?*



Hope these clear up any confusion you might have about *Bromelias*, or colors.



**BROMELIAD SOCIETY
INTERNATIONAL**

CONFERENCE CORNER & Registration

**Save the Date!
You're Cordially Invited!**

**BSI
World Bromeliad Conference
Houston, Texas USA
June 13-19 2016
Come Visit Houston**

**Early summer in Texas is great
.....the Best time to visit
It's Not too hot and it's Before Hurricane season
Bromeliads love it and show it!**



[Westin Galleria Hotel:](#)

Overlooking Uptown Houston
Adjacent to Galleria Shopping Center
Endless Shopping at 4th largest retail center in USA
Dining and entertainment within walking distance

Room Rates ---\$139/night with free parking

Host: Bromeliad Society of Houston, Inc.
Among the largest of clubs in USA
Home of Carole Richtmyer, world renowned Cryptanthus hybridizer
Members are some of the friendliest and most welcoming hosts you will ever meet!

Please Join Us & Celebrate: Bromeliads --- TEXAS Style!

Dr. Steven Reynolds, 2016 Houston Conference Chair Drsteve104@aol.com (512)750-9037

Registration forms can be found on line http://www.bsi.org/bsi_info/wbc/

- \$250.00 if postmarked between July 1, 2015 through January 31, 2016
- \$275.00 if postmarked after January 2016 through April 30, 2016.
- All registrations on or after May 1 will only be processed at the door at the rate of \$275.00.