S.F.V.B.S.

SAN FERNANDO VALLEY BROMELIAD SOCIETY

JUNE 2020

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next meeting: **Saturday June 6, 2020 IS CANCELLED**

Announcements

Message from our President. Hope all are doing well in these very trying times. Unfortunately, we have to cancel another meeting and there is also no meeting on July 4th. Our plans for an alternative activity in July is also questionable as well.

Just a reminder, mosquito season is here. Remember you can make a difference by keeping the cups of your *Bromeliads* flushed out, dried out or continue the use of mosquito bits. Bloomed out *Neoregelias* are where I will find them the most when I am keeping the cups of the plants filled. I am still leaving water around the yard for them to breed in. Mosquitoes prefer this, especially if there is organic material in the water as well. With constant monitoring, dumping the water when I find larvae and how I keep the plants, the local population is drastically effected.

Please stay well and keep an eye on your newsletters for any future news on our meetings.

Bryan Chan

Please pay your 2020 Membership Dues

NEED TO RENEW ?.....

Pay at future meetings to: Treasurer - Mary Chan or Mail to: SFVBS membership, P.O. Box 16561 - Encino, CA 91416-6561

Yearly Membership **Dues - $15 for monthly e-mail** newsletters or **$20 for snail mail**

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, some future meetings, as well as the June show and sale, may be cancelled.**

Saturday June 6	Cancelled
Saturday and Sunday June 13-4	Cancelled
Saturday July 4	Cancelled
Saturday August 1	STBA
Saturday September 5	Cristy Brenner
Saturday October 3	Ray van Veen
Saturday November 7	Woody Minnich

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

Esteemed members, we are always looking for photographs of your bromeliads for the Newsletter. Or perhaps a short article you could write (half page or a couple of paragraphs) about your involvement with Bromeliads. The topic could be of your choosing but something like "how I got interested in", "favorite field trip", "favorite garden", "worst experience", "growing gone wrong" or any other anecdote that you want to share with the Society. This is another way that we can feel "connected" to our club even during these Safer at Home times.

This section is open for any
Member-contributions of photos or articles

With a couple notable exceptions, I haven't managed to entice many members to send in photos for the Newsletter. So, I may just add some interesting photos that don't have much, if anything, to do with bromeliads.

Is this environment too xeric for bromeliads? Can you spot any?

This rocky but barren landscape is Mars! According to https://earthsky.org/, this is a "field of large boulders as seen by the Mars Pathfinder lander on Mars in 1997". A new study suggests that small pools of liquid water may be able to briefly form in the shadows of such boulders at mid-latitudes in the springtime. Image via NASA/ JPL-Caltech/ Popular Mechanics."

Here is a small clump of *Tillandsia bergeri*. I got it back in 2012, and some years it hardly blooms at all. This year is different. Photo by Wisnev.

Below is a less commonly seen bromeliad that used to be considered a *Tillandsia*, but is now *Racinaea hamaleana*.

The below photos were submitted by Bryan Chan.

Billbergia fosteriana – Bryan Chan plant that he received from Bill Baker. It was marked ex: K. Foster, unknown if the K. Foster is Mulford Foster's grandchild

Billbergia alfonsi-johanis – Bryan Chan

Inflorescence of *Billbergia alfonsi-johanis*

Detail of leaf indentation on *Billbergia alfonsi-johanis*. This indentation that is mostly associated with *Aechmea nudicaulis*.

Mike Wisnev's photo from 2018 show and tell of Bryan Chan's *Billbergia alfosni-johanis*

Taxonomic Tidbits: Ananas, Part 2

By Mike Wisnev SFVBS Editor (mwisnev@gmail.com) San Fernando Valley Bromeliad Society Newsletter –June 2020

Last month started a discussion about the pineapple genus, *Ananas*. It turns out that there is quite a bit of disagreement about the correct names for the various *Ananas* taxa. A review of three sources of botanical names makes an excellent case study about taxonomy and nomenclature. Despite the apparent almost complete disagreement, it turns out there is considerable agreement about the various taxonomic units, just very little about the correct name for them.

Note also that there were other names for the genus as well, such as *Ananassa*, but *Ananas* has priority.

Smith & Downs. Let's start with a quick overview of the nine species found in Smith & Downs. Many of these are quite similar. There is little, if any, difference between the flowers of these species, although the size and spination of the floral bracts may vary. Instead the fruits and leaves vary to some degree. Eight of the species are *Ananas* species, and one is in a different genus.

The key in Smith and Downs outlines these differences. Most of the species have a leaf crown or coma at the top of the fruit. These are leaves you see at the top of the pineapple you buy at the store. The eight *Ananas* species generally reproduce by stem shoots at the base of the plant or by the leafy crown, but not by stolons. These eight are discussed first. The key noted *A. monstrosus* did not have a crown, and divided the other 7 into two group based on fruit size and succulence.

<u>Succulent fruit species</u>. Three of the other species have larger fruits that are generally succulent. *Ananas comosus* is the name most commonly

associated with the edible pineapple, and Smith notes it is highly variable. It has relatively small and non-spiny floral bracts, which is the reason you don't see leaves on the outside skin of the pineapple. Leaves can be spiny or almost entire (which means no spines). Despite the fact that the name *Bromelia comosus* was published in 1754, the name *Ananas comosus* was not published until 1917, and the plant was often known as *A. sativus* before then. The fruit grows considerably after anthesis, unlike most other *Ananas* species. Smith treats the variegated plants of this species as a recognized variety, but current authorities don't recognize that variety.

This domesticated species has been bred for tastier fruits without seeds.

Ananassa bracteata

Lindley, Bot. Reg. 13: pl. 1081. 1827. Image from the Biodiversity Heritage Library. Digitized by Missouri Botanical Garden, Peter Raven Library.

The above is now known as *Ananas bracteatus, A. comosus* var. *bracteatus* or *A.* 'Bracteatus." Note the large red floral and peduncle bracts.

Ananas bracteatus and *fritzmuelleri* also have succulent fruit and both have large conspicuous floral bracts. The primary differences between the two are rather minor - whether the leave spines curve back or forward, the color of the mature floral bracts (red vs. green) and whether the petals have scales or vertical folds.

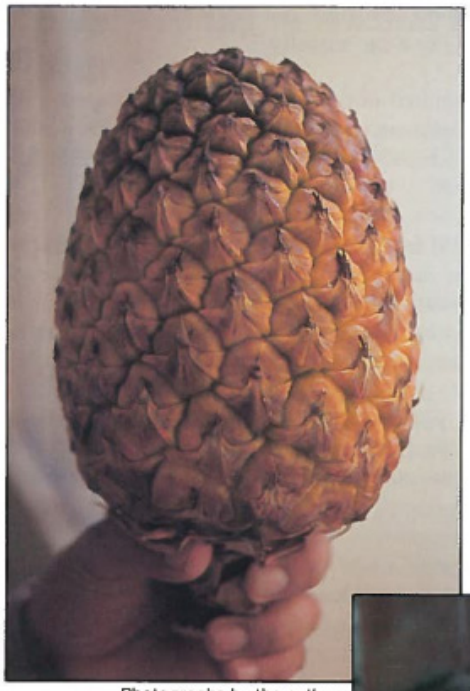

Figure 2
A crownless pineapple from a 'Smooth Cayenne' farm.

Photographs by the author

Figure 3
A 'Valera' crownless pineapple.

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Crownless pineapples.

Photos by Leal, F.

On the validity of *Ananas monstrosus*. 40(6) J. B. S. 246 (1990).

One of the species recognized by Smith & Downs was *Ananas monstrosus* ; it lacks a leaf crown. It turns out this is not a stable character, and arguably illegitimate since Carriere did not intend to propose it as a new name. Id. In any case, the name is now generally treated

as synonymous to *Ananus comosus*.

Here are some photos on *A. fritzmuelleri* - http://www.fpcn.net/m/view.php?aid=7892. There is also one in Bromeliads in the Brazilian Wilderness by Leme and Marigo – the upper floral bracts are pretty much the same color as the ones in the *A. bracteatus* illustration above, but the lower ones are sort of a green/tan mixture. The peduncle bracts are very green unlike the ones in the *A. bracteatus* illustration above.

Dry fruit species. Four of the *species* have smaller fruits (less than about 6 inches) that are generally dry. *A. lucidus* Miller (Smith considers *A. erectifolius* a synonym) has relatively straight leaves without spines except at the tip; some disagree and assert that Miller's *A. lucidus* was an edible cultivar. The other three species have some recurved leaves with spines, and are discussed further below.

It appears that the domesticated pineapple originated from *A. ananassoides*. It has a huge distribution, covering much of South America. Like *A. bracteatus*, *A. ananassoides* (and *A. nanus)* have antrorse spines, that is, they curve toward the tip of the leaves.

In contrast, *A. parguasensis* (like *A. fritzmuelleri*) has retrorse and antrorse spines. *"Ananas ananassoides* and *Ananas parguazensis* are very closely related species without differentiating floral characteristics." Leal, F and E. Medina. 1995. Some Wild Pineapples in Venezuela. 45(4) J.B.S. 152-8. Comparing these two, *A. ananassoides* has longer and narrower leaves, antrorse spines, a larger cylindrical fruit but smaller leaf crown (except in Brazil) and generally grows in open and dry habitats in Brazil, Columbia, Venezuela and Paraguay. A later 2009 study noted the northern forms of *A. ananassoides* have larger fleshier fruits than the southern forms. *A. parguazensis* has retrorse and antrorse spines on its shorter and wider leaves, a smaller spherical fruit and "has been reported from the

Orinoco basin in Colombia and Venezuela, to Surinam and Amazonian Brazil." Id.

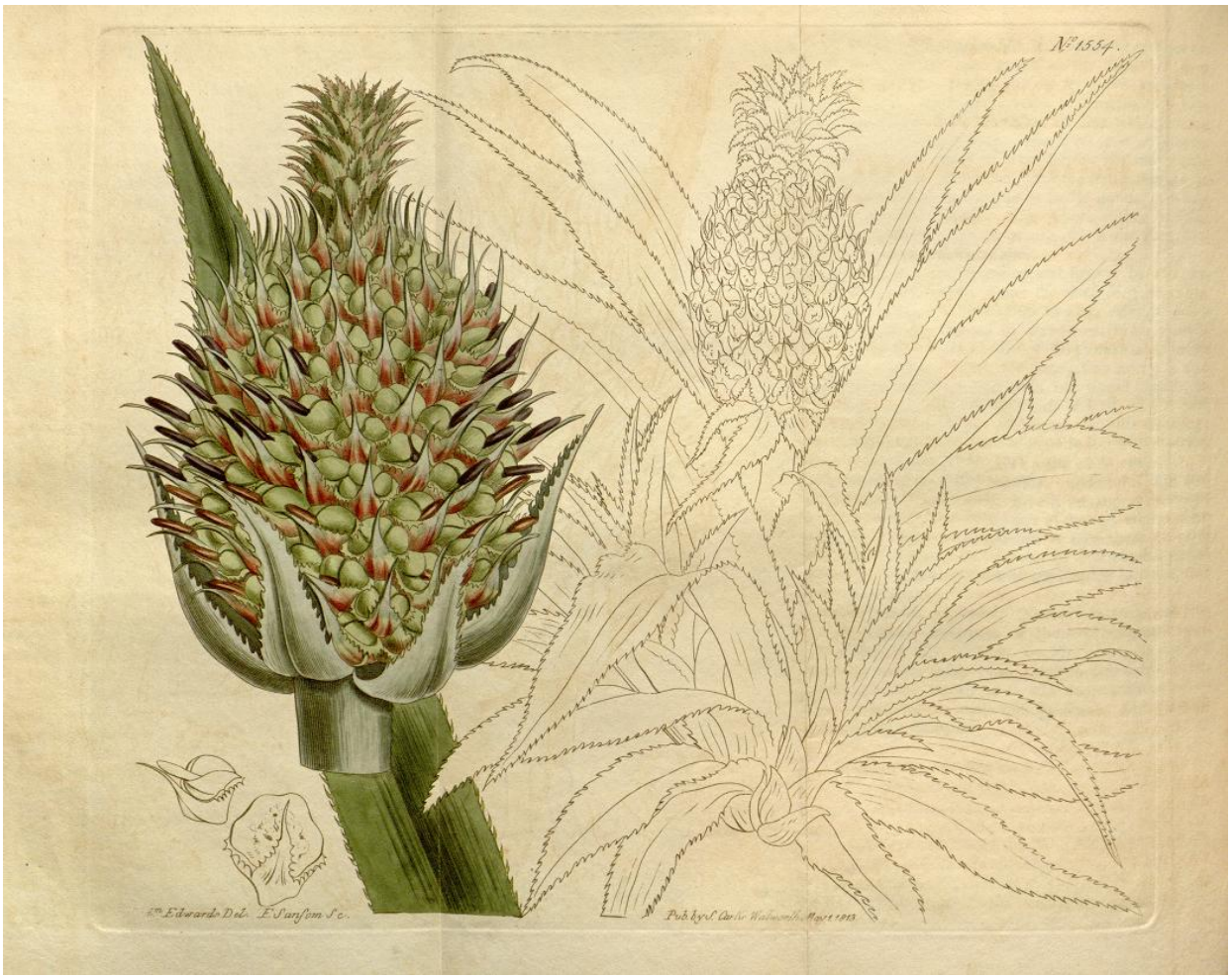
Figure 5
Ananas ananassoides.
Fruit from the Venezuelan types.

Figure 6.
Ananas ananassoides.
Fruit of the Brazilian types.

Ananas ananassoides. Photos by Leal and Medina, 45(4) J.B.S. 152 at 154 (1998).

The authors noted the fruits and leaf crown differed for plants in Brazil and Venezuela

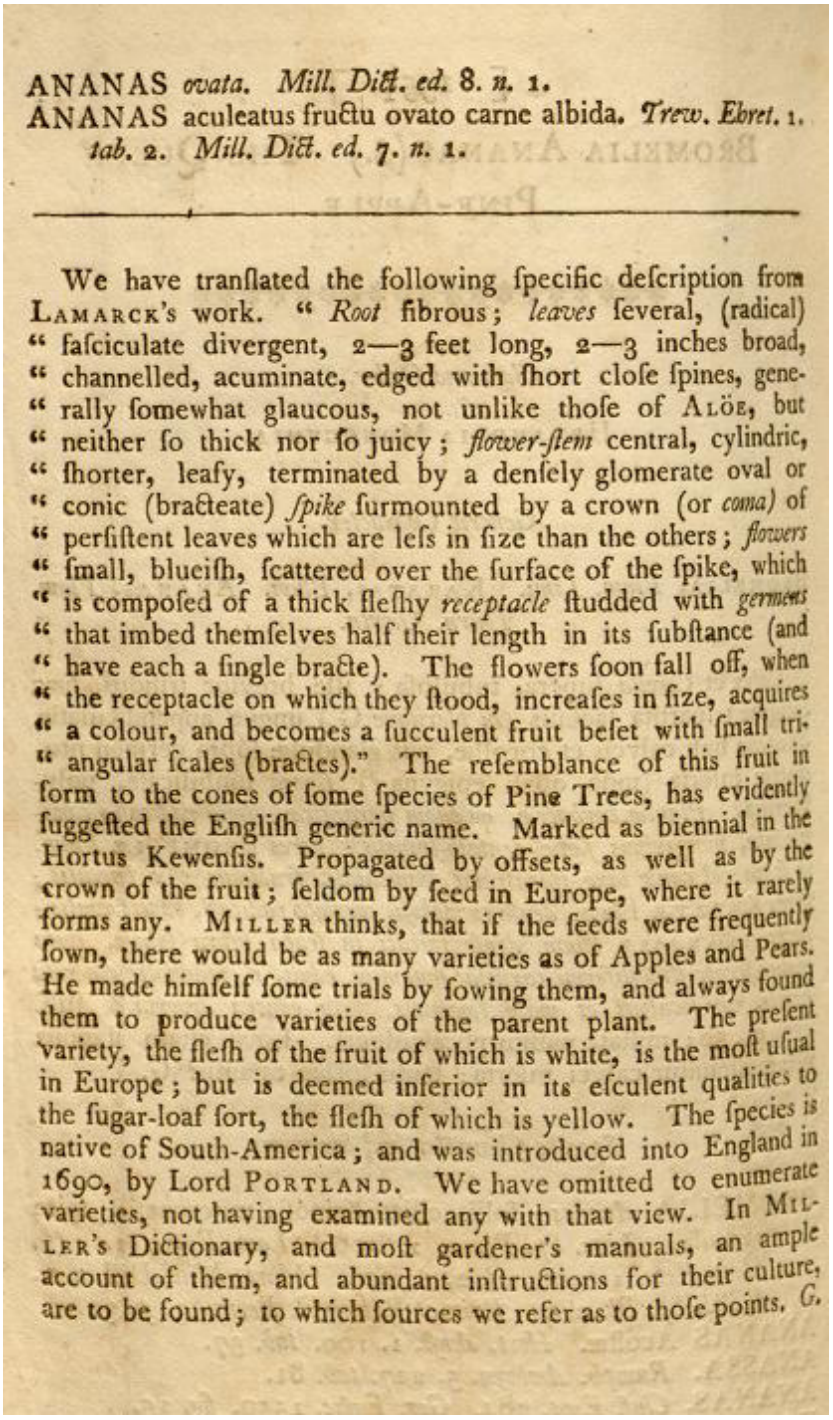
Ananas nanus has a particularly small fruit (about 2-3 inches), a fairly weak peduncle and relatively few flowers. Smith first described this taxon in 1939 as a variety of *A. ananassoides.* In 1962, he treated it as a species without much of an explanation: he only noted that "its distinctions have proved remarkably constant." A New Look at the Species of Pineapple Species, 12(3) B.S.J. 54 (1962). As noted later, most now treat it as a synonym or variety of *A. ananassoides.*



An 1801 illustration of *Bromelia ananas*, the first valid pineapple species name published by Linnaeus in 1753. 15 Curtis's bot. mag. pl. 1554.

Image from the Biodiversity Heritage Library. Digitized by Missouri Botanical Garden, Peter Raven Library.

The correct name for this taxa is now *Ananas comosus.* Like the 1747 illustration of *Anassa domestica* shown earlier, the plant has spiny leaves, and fairly large and spiny floral bracts - I suspect it would not be a big seller at the supermarket.



ANANAS *ovata. Mill. Dict. ed.* 8. *n.* 1.
ANANAS aculeatus fructu ovato carne albida. *Trew. Ehret.* 1. *tab.* 2. *Mill. Dict. ed.* 7. *n.* 1.

We have tranſlated the following ſpecific deſcription from LAMARCK's work. " *Root* fibrous; *leaves* ſeveral, (radical) " faſciculate divergent, 2—3 feet long, 2—3 inches broad, " channelled, acuminate, edged with ſhort cloſe ſpines, gene- " rally ſomewhat glaucous, not unlike thoſe of ALÖE, but " neither ſo thick nor ſo juicy; *flower-ſtem* central, cylindric, " ſhorter, leafy, terminated by a denſely glomerate oval or " conic (bracteate) *ſpike* ſurmounted by a crown (or *coma*) of " perſiſtent leaves which are leſs in ſize than the others; *flowers* " ſmall, blueiſh, ſcattered over the ſurface of the ſpike, which " is compoſed of a thick fleſhy *receptacle* ſtudded with *germens* " that imbed themſelves half their length in its ſubſtance (and " have each a ſingle bracte). The flowers ſoon fall off, when " the receptacle on which they ſtood, increaſes in ſize, acquires " a colour, and becomes a ſucculent fruit beſet with ſmall tri- " angular ſcales (bractes)." The reſemblance of this fruit in form to the cones of ſome ſpecies of Pine Trees, has evidently ſuggeſted the Engliſh generic name. Marked as biennial in the Hortus Kewenſis. Propagated by offsets, as well as by the crown of the fruit; ſeldom by ſeed in Europe, where it rarely forms any. MILLER thinks, that if the ſeeds were frequently ſown, there would be as many varieties as of Apples and Pears. He made himſelf ſome trials by ſowing them, and always found them to produce varieties of the parent plant. The preſent variety, the fleſh of the fruit of which is white, is the moſt uſual in Europe; but is deemed inferior in its eſculent qualities to the ſugar-loaf ſort, the fleſh of which is yellow. The ſpecies is native of South-America; and was introduced into England in 1690, by Lord PORTLAND. We have omitted to enumerate varieties, not having examined any with that view. In MILLER's Dictionary, and moſt gardener's manuals, an ample account of them, and abundant inſtructions for their culture, are to be found; to which ſources we refer as to thoſe points. *G.*

An 1801 description of *Bromelia ananas*, the first valid pineapple species name published by Linnaeus in 1753. 15 Curtis's bot. mag., text with plate 1554. Image from the Biodiversity Heritage Library. Digitized by Missouri Botanical Garden, Peter Raven Library.

This concludes the discussion of the 8 *Ananas* species listed in Smith & Downs. But there was one more pineapple species listed there, in a different genus! You'll have to wait until next month o find out more about it.