



Newsletter of the

# Hawai'i Bromeliad Society

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## UNCOMMON BROMELIADS

Tired of *Tillandsia*? Bored with *Billbergia*? 'Nuff already with *Neoregelia*? If so, then our February program should be right up your alley.

Lynette Wageman will be talking about bromeliads that we don't see every day in Honolulu, so please bring in samples of your own lesser known varieties. Do you have any *Canistrum* or *Canistropsis*? Any *Dyckia* or *Orthophytum*? Some hidden *Hechtia* or *Hohenbergia*? Maybe a *Pitcarnia*, *Portea*, or *Puya*?

With Lynette's help, we will learn more about some of these lesser seen bromeliad varieties.



## FEBRUARY FIELDTRIP

Our February meeting will feature our first fieldtrip of the year. We will meet at Karen Rohter's Waialae Nui hillside home at 12:30. If you were at our June 2016 meeting, you might remember her photos and stories describing how she incorporates bromeliads into her landscape—and it's a very different landscape from Naty's windswept and sea-salted Laie Point home, so this meeting will present a great opportunity to see how another self-taught landscaper uses bromeliads to meet a different set of environmental challenges.

Thank you, Karen, for hosting us, and hope to see you all there.



### 2019 OFFICERS OF THE HAWAII BROMELIAD SOCIETY

PRESIDENT  
Terese Leber

TREASURER  
Dolores Roldan

HOSPITALITY  
Susan Andrade

NEWSLETTER/RECORDING SECRETARY  
Stanley Schab

VICE PRESIDENT/PROGRAM CHAIR  
Gail Ishihara

MEMBERSHIP  
Open

LIBRARY  
Merrill Cutting

CORRESPONDING SECRETARY  
Karen Rohter

## FEBRUARY MEETING

This Saturday, February 23,  
we meet at **Karen's House**  
at **12:30.**

Our hospitality hosts are  
**Gail and John and Georgia.**

## REPORT OF THE MEETING OF JANUARY 26, 2019

Lyon Arboretum

ATTENDING: Susan Andrade, Dina Chuensanguansat, David Fell, Naty Hopewell, Gail Ishihara, John Ishihara, Terese Leber (presiding), Georgia Lyman, Leslie Morishige, Ed Nishiyama, Karen Rohter, Dolores Roldan, Jaime Roldan, Stanley Schab, Cassie Sherod, and Christine Taylor. GUESTS: Debbie, John.

CONVENED: 12:40; ADJOURNED: 2:45.

Terese welcomed everyone, and passed around some sour gherkins (that looked like miniature watermelons!) from the North Shore farmers' market.

HOSPITALITY: Susan circulated a sign up sheet for hospitality hosts for 2019. Our February hosts are Gail and John (food) and Georgia (drinks); and for March, Dolores and Jaime (food), and David (drinks).

MEMBERSHIP: Terese thanked Val Wong for her work as membership chair, and extended HBS's best wishes to her for a successful recovery. Terese outlined the duties of membership chair—to collect annual dues, and provide receipts for them; to give the dues to the treasurer; to collect contact information for members, and provide members with a current directory; and to check in with members who have been absent for more than two consecutive meetings—and reminded everyone that 2019 dues can be given to our treasurer Dolores, who is filling in as membership chair.

PROGRAMS: Terese explained the duties of the vice president and program chair, as specified in our bylaws. The vice president acts as president when the president is absent, and becomes president if the president cannot serve. As program chair, the vice president is responsible for the programs at our meetings.

Gail, who has served as vice president and program chair for three years! (thank you, Gail), described how she was enlisted by long-time member Marie Ferdun. Gail and John became involved in HBS during the run-up to our hosting the Bromeliad Society International World Bromeliad Conference in 2014, and she stepped in as program chair upon Marie's death. Gail emphasized that despite the work and stress involved in what was very much a learning-on-the-job experience, she most valued and remembered the joy of working with, and making friends with HBS members and bromeliad enthusiasts. We all agreed that three-plus years is enough (more than!), and wished Gail—and her five grandchildren—well as she takes time to pursue other opportunities.

The programs that Gail has lined up for this year include Lynette Wageman, leading a discussion on our lesser known bromeliad cousins (February); Larry, on *Tillandsia* basics (March); a program on all things small, such as mini-Neoregelia (June); Mischa Kobayashi and Brian Taylor on *Tillandsia* for small spaces (July); and an update from Naty on her adventures in landscaping (August).

TREASURER: Dolores circulated the 2018 annual report, noting total expenses of \$2,975.25, with the major expense being the \$2,000 contribution to Lyon Arboretum to fund a student worker, and total income of \$4,384.59, including \$1,703 raised from our meeting auctions and \$2,019 from craft fair sales, for a net gain of \$1,409.25.

NEW BUSINESS—ANNUAL DONATIONS: Dolores noted that last June HBS renewed its membership in the Cryptanthus Society for two years. With membership we receive the quarterly *Cryptanthus Society Journal*; issues may be borrowed from our library. Terese reminded members that in 2015 we had paid for a three year BSI membership, which expired on December 31. Members voted to

**renew our membership in the Bromeliad Society International for 2019, 2020, and 2021, for \$90, and to contribute an additional \$510 to support the publication of the *Journal of the Bromeliad Society* and other BSI projects, for a total donation of \$600.**

(moved Susan, seconded Naty; approved).

Terese also reminded members that for the past several years HBS has contributed \$300 a year to Lyon Arboretum, as a thank you for letting us hold our meetings and keep our library there. In addition, since 2017, we have donated a \$1,000 a semester to the Arboretum to support a student worker to help maintain the bromeliad garden. Members voted to

**donate \$300 to Lyon Arboretum as our annual donation for 2019, and an additional \$1,000 to fund a student worker for the bromeliad garden.**

(moved Susan, seconded David; approved).

NEW BUSINESS—BROCHURE COMMITTEE: At the suggestion of Naty, Terese convened a committee consisting of Naty, David, Gail, and John to design a brochure that would inform the public about bromeliads and about the Hawai'i Bromeliad Society. The publication should prove to be very useful at public events and as a give-away to new and prospective members.

NEW BUSINESS—WINDWARD ORCHID SOCIETY SHOW: Terese reported that we have been invited to prepare a display for the Windward Orchid Society's 39th Annual Orchid Show and Plant Sale, "Game of Trophies," which will be held March 22 to 24 at King Intermediate School. As usual, set-up for the show will take place on Thursday morning, March 21. At the February meeting, Terese will provide additional information about our participation.

AUCTION: Thanks to John Kawano (many of us remember his presentation on *cecropia*, a.k.a. lantern flowers) for donating a variety of great rocks for mounting bromeliads.



# BROMELIADS 101: COVERING THE BASICS WITH DAVID FELL

*“Bromeliads are biological systems, like us, and need the same things we do.”*

It can be easy to get bogged down in the minutiae of bromeliad cultivation, but one important lesson that we learned from David is not to lose sight of a few basic principles. And one of those is to pay attention to the general evolutionary history of our favorite plants. As he pointed out, “if you understand where bromeliads come from, you’ll be able to tell if a plant would be a good choice for you.” And be better able to understand how to care for it.

## DAVID FELL: AN EVOLUTIONARY STORY

David’s journey to becoming a world-renowned cultivator of bromeliads is definitely a story of adaptation: from Pennsylvania to Honolulu, almost fifty years ago, where he earned a degree in horticulture from the University of Hawai‘i, to the island of Hawai‘i, where he and his wife, Sandy, opened and operated Hawaiian Sunshine Nursery for over thirty years, back to O‘ahu, where he specializes in cultivating variegated and collectible bromeliads—and shares his expertise and experience with fortunate HBS members!



## BROMELIADS: AN EVOLUTIONARY STORY

Bromeliads are New World plants, flourishing from the southern United States to the southern tip of South America—a geographical range that includes deserts, rain forests, mountains, and sea coasts. The more we know about how a particular genus developed—the conditions under which it evolved—the better we’ll be able to grow it successfully. The five-hundred-plus species of the genus *Tillandsia*, for example, vary widely, reflecting the very different growing conditions in which they evolved. “Hairy” species like *curvifolio* or *gardneri* developed in dryer environments. They evolved with lots of trichomes, organs that look like scale or hair on plant leaves, and which are designed to absorb water from fog or mist. They are also more silver in color, leading to the general observation that the more silver and hairy a *Tillandsia* is, the dryer the environment it will survive in, while greener *Tillandsia*, like *polystachia*, evolved to need more shade and water.

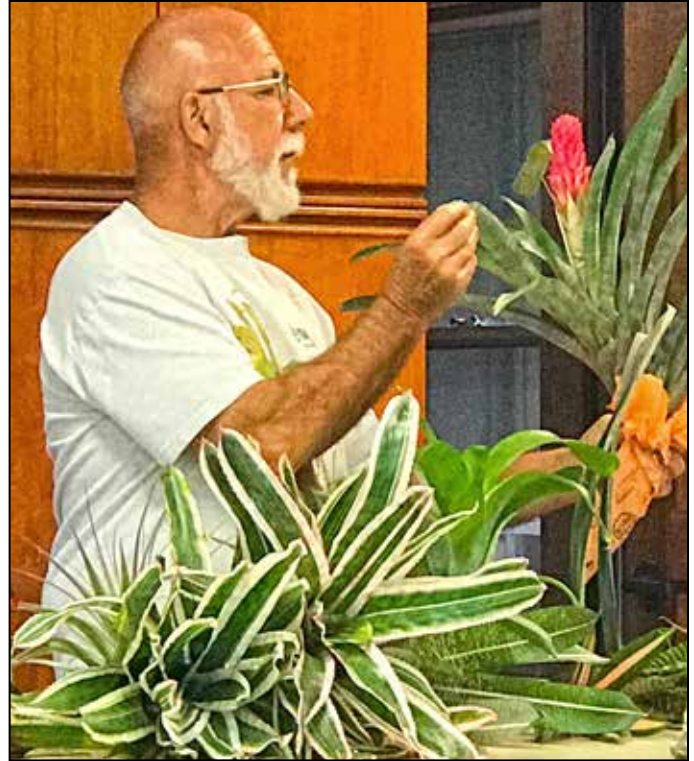
Of course, if you live in Honolulu’s equivalent of a Central American rainforest—Larry McGraw’s yard—you can hang just about any *Tillandsia* on a wall, any which way, and it will flourish.



Based on their origin in areas where drought was a feature of their home environments, some bromeliads developed tank forms to hold water. Most *Neoregelia*, for example, adapted to handle dryer, harsher environments than most *Guzmania*—an evolutionary fact to keep in mind when deciding what to plant, depending on where you live. *Cryptanthus*, “earth stars,” adapted to live on forest floors, so need shade to thrive. Other bromeliad varieties adapted to monsoon rains by becoming primarily tree dwellers—a good way to avoid root rot. Although there are terrestrial bromeliads (ones that evolved in soil), and others that evolved to live in rocks (like some *Alcantarea*), most are epiphytes: plant that grow on another plant or object, using their roots for attachment and support, but that get water and nutrients from the air.



“Figure out what works in your environment, and fits your needs. For hot, dry areas, for example, consider *Aechmea*, *Neoregelia*, or *Quesnelia*. If you know the habitat a plant came from, you can generally tell if it would be a good one for you to cultivate.”



Bromeliads have evolved a variety of flower structures: some have terminal flowers at the top, like *Tillandsia*; some have small flowers in a central tank, like *Neoregelia*; some have extravagant inflorescences with inconspicuous flowers, like *Alcantarea*. Most bromeliads die after flowering, and in most bromeliads, the flower is uglier than the plant—prime examples being the variegated *Vriesea* David has hybridized. Left to themselves, some bromeliads propagate by developing pups, a generally slow process, and some by seed, an infinitely slow process. Growers regularly try to speed up propagation. David described the stabbing process he uses to jump start the natural pupping process and make his plants produce keiki. He destroys the plant’s point of apical dominance—its primary growing point. This causes the plant to put more energy into creating pups than into flowers or seeds. Pups generally start appearing about a month later.

As an example of the process he uses in creating cultivars, David described the long and laborious job of hand pollination. *Vriesea* flowers open around 7 at night, so he has to go out before geckos have contaminated the process, break off the anther (the male part of the flower) while leaving the pistil (female part) intact—and these parts are Tiny!—to place the pollen on for the desired cross-pollination. And then wait. And wait. For a *Vriesea* to develop from pollination to the size of about a foot, which is when you can begin to see if the hybrid plant has the desired characteristics, takes about four years. As Pam Koide of Bird Rock Tropicals put it, she just hopes she lives long enough to see the results of some of her crosses.

Stay tuned for the March newsletter, which will feature some of David’s tips on the basics of bromeliad fertilization (plants are like people—feed them if you want them to grow).

