Newsletter of the

Hawai'i Bromeliad Society

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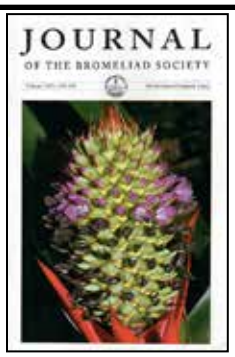
BROMELIAD RESOURCES

Where do you go to get information about bromeliads: how to grow and care for them? how to identify them? This month we'll compare and discuss sources of information—from the Internet, from other growers, and from our own library. Come and share your own tips and experiences in bromeliad education.



THE MORE THINGS CHANGE . . .

From the January 1988 HBS Newsletter: *"How long since you have been up to visit our very own bromeliad garden at Lyon Arboretum [asks] program chairman Lynette Wageman. . . . There were only three people at the 'garden party.' . . . ALL members are encouraged to help."*

Now, some thirty years later, HELP is still needed. We are down to a small crew of hardy gardeners. If you are interested in helping out in the Bromeliad Garden, or just in visiting it or learning more about it, talk to Terese or Karen.

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MAY MEETING

This Saturday, **May 25,**
we meet at **Lyon Arboretum**
at **12:30.**

Our hospitality hosts are
Lynette and **Shar.**

REPORT OF THE MEETING OF APRIL 27, 2019

Lyon Arboretum

ATTENDING: Merrill Cutting, David Fell, Naty Hopewell, Elsie Horikawa, Terese Leber (presiding), Sally Mist, Ed Nishiyama, Karen Rohter, Dolores Roldan, Jaime Roldan, Stanley Schab, Tom Stuart, Lynette Wageman, Randy Wong, and Val Wong. GUEST: Judy.

CONVENED: 1:00; ADJOURNED: 2:50.

Terese welcomed everyone, and thanked Stan and Ed for the food and drinks.

HOSPITALITY: Terese noted that Susan was having an eye operation; everyone wished her a speedy recovery. Our April hosts are Lynette (food) and Shar (drinks).

MEMBERSHIP: Naty reported on new inquiries about membership

PROGRAMS: Elsie will be the featured speaker for the program for the June meeting, which will be held at Lyon Arboretum. She will focus on the variety of tools she uses, and her cultivation practices.

TREASURER: Dolores reported that our current balance is $12,708.26, with $351 raised at the March auction.

LIBRARY: Merrill reported that the DampRid product she had bought for our library cabinet was keeping the moisture under control. She circulated a picture of an *Aechmea fasciata*—a specimen of which would be up for auction—to show the kind of resources available in our library, and to encourage their use.

OLD BUSINESS—HBS BROCHURE: Naty reported that she got a quote of $671 from Office Max for 500 brochures—a cost of $1.34 each, although on a lighter weight paper than the 32 pound stock that was priced at $1400, She reminded members that the purpose of the brochure is to increase the Society's visibility and further our educational mission. Naty has designed a trifold format that includes information on HBS and bromeliad cultivation, focusing on eight of the more common varieties. The brochures will be given out at shows, sales, and events, and placed in appropriate businesses as allowed, like nurseries such as Koolau Farmers. She will continue to check price options, including online, out-of-state producers, and see about getting a sample product.

NEW BUSINESS—FACEBOOK PAGE: In addition to the brochure, members strongly advocated developing a Facebook presence to increase our visibility. Stan will check on the availability of HBS as a page name.

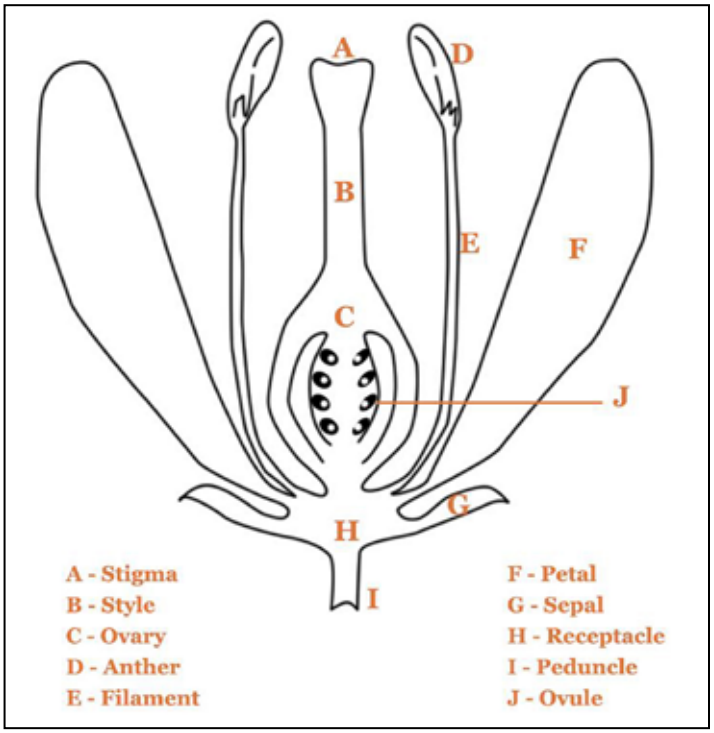
NEW BUSINESS—GIVEAWAYS: Lynette presented freebies from her closet for members to choose from, including glasses from last year's BSI World Bromeliad Conference in San Diego, a copy of Dudley Reynolds's photo book, *Dramatic Leaves of Aechmea orlandiana and Its Cousins,* and the few remaining t-shirts produced over ten years ago.

AUCTION: Thanks to all who donated items for the auction, including trays of clay pots from the Wongs; two specimens of Cook Island Pine, some kalanchoe and echeveria, dwarf oyster and miniature jade plants (and even a few bromeliads!) from Marie Grininger; and from Ed, Merrill, David, and Tom, specimens of *Aechmea fasciata* and *orlandiana*; *Quesnelia testudo*; *Tillandsia bulbosa, capitata*, *caput-medusae, concolor,* and *harrisii;* and *Neoregelia compacta, punctatissima rubra, spectabilis,* 'Bossa Nova,' 'Esmeralda' (a Liza Vinzant cultivar), and David's own 'Pink Magic' cultivar.

LEFT: A wood-mounted *Tillandsia capitata*—yellow variety.

HANDS ON LESSON IN BROMELIAD REPRODUCTION

ABOVE: David holding an anther in tweezers. BELOW: reproductive parts of a flower. BELOW RIGHT: Note how the *Neoregelia* 'Pink Magic' flowers are protected by their location in the plant's central well.



For our April program, David Fell took us back to our teenage years with an entertaining and educational demonstration of sexual reproduction—in plants! One way bromeliads reproduce is by growing from seeds, and seeds develop through pollination. This can happen in nature in various ways. Geckos, birds, ants, bees, flies, even the wind, can carry pollen from one plant to another, and when the two plants are from different species, the resulting baby plant is a hybrid. But people can also have a hand in plant reproduction, by deliberately placing the pollen from one plant on another, and when that results in plants that are distinct, uniform, with stable characteristics that can be passed on from one generation to another, that new plant is a cultivar. At our April meeting, David showed us some of the first steps involved in cultivation.

So, David asked, since plants have been doing it by themselves for millennia, why have sex with plants? It's like Christmas to see new baby plants, he replied; the results are always a surprise. You never know what you'll get.

How do you have sex with plants? As with other living beings, it helps to know a little something about biology and body parts. In flowers, the female parts are the stigma, style, ovary, and ovule. The stigma is the receptive part of the female flower. The anther is the male part, where pollen is found. The female parts are in the center, surrounded by the male parts. Pollen from the anthers of one plant, when deliberately placed on the stigma of another plant, may germinate by traveling down the sticky surface of the stigma into the ovule of the plant, where it can develop into a seed. (Plant sex experts sometimes call the male parts—the anther and filament—the stamen, and the stigma, style, and ovary the pistil).

Continued on page 4.

BROMELIAD SEX ED: HOW TO MAKE KEIKI

From page 3.

One key to successful hybridization is knowing when the flower is fertile. Like people, David pointed out, plants like to have sex at different times of day; *Vriesea* and *Alcantarea* prefer night. When the plant is ready, the female parts become moist, and he uses a wet brush to put pollen collected from another plant (and saved up in the refrigerator!) onto the stigma. Sometimes he uses tweezers to hold the anther and dab it directly on the stigma. This allows him to pollinate a mother plant with pollen from different father plants, so good record keeping is essential. He makes sure to label each site of pollination, and keeps a log book of his coded tags, noting the mother and father plants and dates of pollination. For his *Vriesea* cultivars, he uses metal tags, and writes on them with pencil, as it stands up better to time and nature,

Pollination is easier with some plants than others, we learned. *Neoregelia* parts are buried deep in the flower in the plant's center well. *Tillandsia* are easier because the flower parts project above the plant. David will create ten to fifteen of the same crosses, since the pollination doesn't always take, or result in seeds. And, he reminded us, pollination is only the first step. If seeds develop, he has to collect them, and they are often protected by their placement among the plant's spiny edges. He grows out the seeds in trays, in four-inch pots, three-quarters full of coconut chips topped with coconut peat moss. The seeds are placed on top and watered twice a week, with the rest of his plants. *Alcantarea, Neoregelia,* and *Tillandsia* grow up faster; *Alcantarea,* for example, can develop from seed to plant in about a year. One reason *Vriesea* cultivars are so highly valued is that they can take four years or more to develop, before you can really see what you've got—which might not at all be what you expected. Even seeds from the same parents can produce different offspring depending on which one was used as the mother plant.

Delicate, painstaking work with uncertain outcome years later—so why hybridize? As David said, the greater the challenge, the greater the reward, and sometimes the results are a new, stunning creation, like his *Neoregelia* 'Pink Magic" and award-winning *Vriesea* cultivars.

LEFT AND BOTTOM LEFT: eager bromeliad sex-ed students. BOTTOM RIGHT: dabbing anther on stigma.