



BROMELIAD SOCIETY OF GREATER CHICAGO

THE BSGC NEWS

JUNE, 2017

President	Lori Weigerding	(630) 978-7340
Vice President	Martha Goode	(815) 459-1623
Treasurer	Paula Dering	(847) 295-2559
Secretary	OPEN	
Newsletter Editor	Steve Goode	stevegoode1@ameritech.net

WEB SITE
Webmaster

<http://bromeliad-chicago.org>
Lori Weigerding

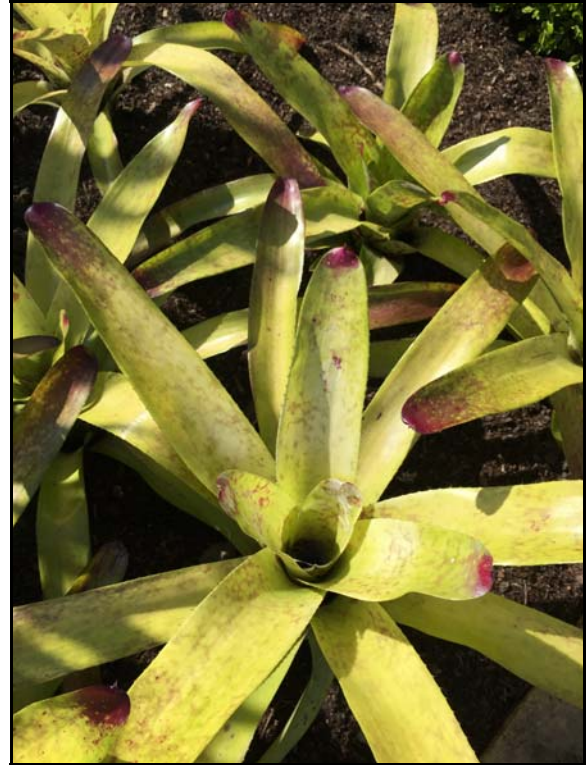
We had our first meeting in the Lakeside room at the Garden in June. It is a very nice room. Martha and Steve shared their pictures of their trip to Singapore and Australia. There will be a second program which will cover the Sunny Broms Conference and the Australia Zoo on July 9th at 2pm in the Lakeside room at the Garden. The Lakeside room is in the Visitors Center. You turn right after you pass the information desk on the right side by the gift shop.

We discussed the Show we had in conjunction with the Iris and Daylily Society. We want to welcome our new member Jerry Oberstadt who joined at the Show. Several people commented that we had a "nice display" and it was "bright and cheery". Paula gave us the financial report from the show. We still have several large Tillandsia juncea and fasciculata. If anyone would like them. I have glued a few to seashells.

Priscilla mentioned they are celebrating Brazil in the Garden. Please go and look at the bromeliads throughout the summer and see how they are doing. If you go to the Chicago Botanic Garden's website, you can see the events they have throughout the summer.



Bromeliads in the Landscape at the Chicago Botanic Garden



President's Column

Well we certainly had a lovely show. Thanx to everyone that helped make it a success! Our roommates also reported that their show was a success. We definitely enjoyed sharing the room with the Iris & Daylily Society. We want to wish Jack a speedy recovery and hope he and Ardie are doing well. We missed them at the show.

Martha and Steve showed us lots of pictures from their trip at the June meeting. We get to see and experience different places and a wider variety of plants thru their trips.

The Iris and Daylily Society has invited us to join them at their next meeting, Sunday, June 25, 2017 at 12:00 pm, at Friendship Park Conservatory in DesPlaines. To share their food, talk about how our joint show went and to learn about tea. If you have a dessert you'd like to bring that is awesome.

Jeff and I will miss the next meeting on July 9th, as that's our grandson's birthday and graduation party. I'm sure you'll all have a great time without us. Lol

Please join Martha and Steve on July 9th, I'm sure you'll have a blast!

Lori Weigerding



Jack's shaded area for his and Ardie's Bromeliads



Jack Reilly working on his Broms

You may want to start fertilizing your bromeliads now if you haven't already. If you have some blooms please share them with us. We will be happy to put them in the Newsletter so everyone can see them.

We began the month hot and dry so I thought we might not have many mosquitoes. Then of course the weather changed and we have had many rains so I'm sure the mosquito population will be a problem. I got some Mosquito Bits which is BT in a granular form. (From Amazon.com). I have been putting them in the cups of the bromeliads.

I remember last year there were several articles on mosquitoes in the Florida Bromeliad Newsletters. I was able to find them. They are very informative.

In the CBS Sept/Oct. Newsletter, Marc Frank, Extension Botanist for UF/IFAS Plant Identification and Information Service wrote the following: When I attended the Caloosahatchee Bromeliad Society meeting in May, there was a lively discussion about mosquitoes in bromeliad tanks, whether it was an issue of concern, and how to control them.

I just ran across what I think is a very thorough article on this subject from the Tampa Bay Times, which includes some useful information from UF/IFAS

extension personnel in Pinellas County. The article was published in 2008 but the information still seems relevant. I'm sending the link to you, so you can share it with the Society members by email or print out and distribute to your members at your next monthly meeting, If you think it's of interest.



Priscilla's pictures from the San Antonio Botanic Garden

Tamp Bay Times

May2, 2008

by Yvonne Swanson

Bromeliads get a bad rap, and they don't deserve it. These exotic tropicals seem to be on every mosquito-fearing homeowner's blacklist, forever banished from the garden for fear their capacity to hold water provides safe harbor for the blood-sucking pests.

But bromeliads are a delight in a Florida garden and one of the easiest plants you'll ever grow. Incredibly forgiving and adaptable, they're found throughout the world in tropical and subtropical climates. There are thousands of species, from sun-loving bromeliads that thrive in sandy deserts and on rocks in the mountains, to shade-lovers that inhabit trees and the jungle floor.

Several bromeliads are native to Florida; most of them are found in South Florida and are considered endangered. In our area you're more likely to find native bromeliads in the *Tillandsia* genus, which includes true air plants, which are happy growing in trees. Air plants (epiphytes) absorb water and minerals through their leaves and use their roots merely for anchoring.

Not all bromeliads have little reservoirs at their center. Spanish moss (*Tillandsia usneoides*) and ball moss (*Tillandsia recurvata*) are perfect examples. But many exotic bromeliads that produce spectacular blooms have those "cups" or "tanks," and they like a little puddle of water in them now and then. It's even better when organic debris settles in, providing nature's best plant food. But it creates a potential problem: Stagnant water is the perfect environment for mosquitoes to lay their eggs.

Horticulturists have conducted plenty of studies to determine if the plant is indeed a major contributor to mosquito populations and to identify which kinds of mosquitoes favor its tanks. A study by the University of Florida found that of 78 mosquito species in Florida, none were specifically associated with bromeliads. However, under certain conditions, certain mosquitoes can be drawn to bromeliads, primarily the small *Wyeomyia* mosquito, which is active in daytime but doesn't wander far from its home.

"Bromeliads are very environmentally friendly. Mosquitoes can be a problem, but it's a problem that can be solved," says horticulture agent Pam Brown

of the Pinellas County Extension/Florida Botanical Gardens in Largo, which has an extensive bromeliad garden with several thousand individual bromeliads.

Several hundred offshoots, or pups, from the Botanical Gardens' bromeliad collection will be offered for sale May 10 at the Pinellas County Master Gardener Plant Sale in Largo. The annual event is one of the bay area's largest sales, with thousands of low-cost plants raised by volunteer master gardeners who, along with professional horticulturists, will provide on-site plant care and landscaping advice.

Mosquitoes aren't a problem at the botanical gardens because horticulturists there regularly apply a safe bacterial toxin that kills mosquito larvae, says Bob Albanese, a Pinellas County horticulturist. Called *Bacillus thuringiensis israelensis* (BTI), the product is available in granular and doughnut-shaped pieces at nurseries and online suppliers. Brand names include Mosquito Dunks, Quick Kill and Aquabac. At the botanical gardens, granules are applied once a month with a broadcast spreader, but most homeowners need only a few granules per plant, sprinkled in the cups about every 45 to 60 days, says Albanese, who follows that program with his bromeliads at home in St. Petersburg.

Pinellas County Master Gardener Luis Rey, who grows bromeliads at his home and volunteers at the plant sale, insists mosquitoes aren't a problem. However, he's careful not to cluster the plants, to prevent the accumulation of water. It's also important to regularly remove decaying leaf matter from the plant's cup and adjust irrigation sprinklers so they aren't overwatering.

An inexpensive alternative to BTI can be found in the kitchen cabinet. Just 1 drop of cooking oil placed in the bromeliad's cup will smother mosquito larvae. Use a medicine dropper to apply oil about every 20 days, Brown recommends. Another approach is to simply flush the water regularly with a garden hose, to interrupt the mosquito's life cycle so it can't reproduce.

One of the biggest misconceptions about bromeliads is that they are the culprit for mosquito attacks morning, noon and night. Not so, says Albanese. "If you are getting bitten at night, they are coming from somewhere else," he says. That's because the *Wyeomyia* mosquito flies only during the day, and it doesn't travel more than 50 feet from its host plant. If mosquitoes are a problem in your yard, stop blaming bromeliads and start looking for standing water in other sources, such as open containers, a much more likely breeding ground for those irritating pests.

Yvonne Swanson is a freelance writer in St. Petersburg and a master gardener for Pinellas County.

Additional information for Bromeliad Growers about mosquitoes.

Gainesville Bromeliad Society link
<http://www.gainesvillebromeliadsociety.org/Partners.html>

SHARING A NEW LOOK AT MOSQUITOS



Aedes albopictus (common name: Asian tiger mosquito) is an invasive species of mosquito from Asia that arrived in Texas in the 1980s and spread widely in the southeastern USA. It now occupies virtually all but southern Florida and has displaced *Aedes aegypti* (common name: yellow fever mosquito). Adult mosquitoes of both these species are black with white markings. Behavior of these two species is similar. Adult females of these mosquitoes lay their eggs glued at the waterline of small water containers (such as saucers under plant pots, scrap tires, empty cans, jars and bottles, water barrels, water dishes for pets, birdbaths, boats, and rarely bromeliad leaf axils). The eggs hatch when they are inundated by water (such as during rain or when the container is topped up). The larvae hatching from the eggs feed in the water and, when they are large enough, become pupae. Pupae are comma-shaped and do not feed – after a couple of days, adult mosquitoes emerge from them. The females fly off to find a blood meal, from you or your family or friends or neighbors. The male mosquitoes feed on plant nectar.

The problem is that both species are capable of transmitting dengue fever and chikungunya, and Zika viruses if they are infected. Please search Google for information on Zika virus. Your best source is CDC (Centers for Disease Control). They are diseases that you, your family and neighbors do not want. All it would take is for someone from your neighborhood to visit the Caribbean, return with an infection, be bitten by an *Aedes albopictus* mosquito from your yard that then bite someone else, and bingo, your neighborhood will be a focus of infection. Your local Mosquito Control District will likely send inspectors to your yard, and if *Aedes albopictus* adults or larvae or pupae are found, you will be in violation of Florida Statutes (1987. 386.041. Nuisances injurious to health). Your violation by producing these mosquitoes in your yard gives the Mosquito Control District

various powers.

Until now, bites produced by *Aedes albopictus* mosquitoes in Florida were mainly just a nuisance. Now it is time to get serious by controlling these mosquitoes in your yard. Be prepared to show Mosquito Control District employees that your bromeliads are not producing these mosquitoes.

However, in central and southern Florida, the real owners of bromeliad leaf axils are two species of small mosquitoes called *Wyeomyia* that are native to Florida. A year-long survey in 4 cities (Daytona Beach, Vero Beach, Tampa, and Miami) in 1978-1979 showed that their eggs, larvae and pupae represent 99% of all immature mosquitoes in *Billbergia pyramidalis* leaf axils, with *Aedes aegypti* less than half of 1% (and *Aedes albopictus* not yet present). See <http://journals.fcla.edu/flaent/article/view/58346/56025> This is a good thing because they outcompete *Aedes* larvae for nutrients. *Wyeomyia* adults bite people, but transmit no diseases to people. It is their feeding in bromeliad leaf axils that reduces *Aedes*.

In Alachua County, you may have *Wyeomyia* mosquito larvae in your bromeliads due to accepting bromeliads from people who have *Wyeomyia*. Your best option is to clean your bromeliads to remove nutrients.

Suggested control methods:

- 1) Sweeper nozzle on a garden hose. Weekly blasts from a hose thus fitted should wash out debris (including the food of mosquito larvae) from bromeliad axils and perhaps some mosquito larvae and pupae, too. Sweeper nozzles can be bought at garden stores.

- 2) Reduce nutrients to the mosquito larvae. Cut out dead flowers from *Neoregelia*. Do not allow lawn clippings into bromeliads.

If you have only *Aedes albopictus*, then control methods are the two items above, and also:

- 3) Methoprene. This is an insect juvenile hormone analog. It interferes with development of insect larvae so they die before they reach the adult stage. It does the same to immature crustaceans (shrimp, crab, lobster) but has no effect on vertebrate animals including people and pets. Buy Altosid (a trade name) methoprene mosquito granules and sprinkle them by hand into the water in your

bromeliad axils. Their effect is supposed to last up to 30 days. You can order them online under the name Altosid methoprene mosquito granules. Read the directions.

4) *Bacillus thuringiensis israelensis* called Bti for short. This is a bacterium that kills larvae of aquatic flies (mosquitoes, black flies, and chironomids). This strain (*israelensis*) is specialized to aquatic fly larvae. Other strains are specialized to caterpillars of butterflies and moths and beetles. It is harmless to vertebrate animals including people and pets). You can buy this product under several trade names as Bayer Advanced Garden Mosquito Preventer as granules in 1lb plastic containers at garden stores or as Mosquito Bits (from Amazon.com). Follow directions: you need just a tiny amount per bromeliad.

5) Hydrogen peroxide. Dave Johnston, our speaker on 22 June, recounted that "I use 8 ounces of tech grad 37% hydrogen peroxide per 1000 gallons of water and recommend 1 tablespoon per gallon of CVS or Walgreens concentration. Anyone following the previous misquote may kill their plants."

Please try these methods and learn which one works best for you. The test is: How many black and white mosquitoes (*Aedes albopictus* or *Aedes aegypti*) bite you at (say) 6 pm a biting hour in the shade near your plants in the summertime. Could you demonstrate to a Mosquito Control District Inspector the absence of these mosquitoes after you begin routinely using one of these methods?

The general public has just discovered that bromeliad leaf axils may contain mosquito larvae. This has promoted hysteria in southern Florida because the general public has never heard of *Wyeomyia* mosquitoes. This in turn is causing vilification of bromeliads. Inspection teams at Miami Beach Botanical Garden found *Wyeomyia* mosquito larvae, but no *Aedes* larvae in bromeliads. The result was removal of all terrestrial bromeliads from the garden!

Gainesville Mosquito Control

For more information and additional photos:

<http://www.cityofgainesville.org/government/citydepartmentsnz/publicworks/mosquitocontrol/tabid/272/default.aspx>

Other areas of Alachua County do not have organized mosquito control.



Anne T. Coughlan Tillandsia in Shell



Picture of Pineapple in the Chicago Botanic Garden Library