

The Palmateer

Volume 33, Number 3

Central Florida Palm & Cycad Society

September 2013

Two stops, Myakka City area **September 14th Meeting**

By John Kennedy

First stop on our pilgrimage to the borders of Sarasota and Manatee Counties is to the property of Faith Bishock. We've been there before, a couple of times, as recently as 2010. Recalled as a lovely place with Faith as welcoming hostess. She and her late husband, John, settled at 4631 Hidden River Road in the early '90s as refugees from Miami.

Some great palms to see, including large specimens of *Acrocomia aculeata* and

(Continued on page 5)

*Below, Faith Bishock (left foreground) takes visitors to see her *Borassus aethiopum* in 2008. Visible to the sharp-eyed: Tom Broome, Ron Hart, Maryann Krisovitch, Cindy Broome. (Photo by Bob Johnson)*



What We Did in Lake Placid: **June Meeting Report**



Walt Darnall takes the June visitors on The Tour. Various well-known faces visible.

(Photo by Maryann Krisovitch)

“What is so rare as a day in June?” asks 19th century poet James Russell Lowell. But his following line will ring no bells with Floridians: “Then, if ever, come perfect days.” Sure. Maybe in New England. But in Lake Placid, Highlands County, at the homespread of Walt and Cathy Darnall, June 8th is tolerable. Hot, of course. Humid, naturally. But, hey, it's still not July when we will all pay for living here. Rather more cloudy than would be preferable, and was it 60% chance of rain? It is the rainy season and we must be grateful that it appears, so far, to be

(Continued on page 4)



CONTENTS

September meeting	1
June meeting report	1
U.A. Young collection	2
Directions to September meeting	3
September meeting schedule	3
Effect of water & elevation	8
Tropical World, Hawaii	13
Florida palm lotto	14
Mystery palm	17
Motels	19
Heathcote Botanical Gardens	20
Fertilizer applicator	23
From the editor's desk	27
Plant sales	27
Veitchia joannis?	28
New Zealand nikau	29
Coffee, cycads' best friend	32
President's message	40
Treasurer's report	42
June board minutes	42
Leu donation to Kopsick	43
Membership form	44
PayPal instructions	44
Board list	45

In Case You Were Wondering. . .
Phil Stager tells us that the St. Petersburg City Beautiful Commission is working diligently to acquire the U.A. Young cycad collection. The cycad collection is probably the best in Florida. They are working on both City funding and alternative sources of funding. Stay tuned. Phil will give us an update at the meeting.

Remember, you can ZOOM in to enlarge a page or a picture. You can print pages or the entire issue. You can also DOWNLOAD the issue to your computer.

The Palmateer

The Palmateer is published four times a year: March, June, September, and December by Central Florida Palm & Cycad Society, a chapter of the International Palm Society and of The Cycad Society. The views expressed are not the official positions of the society nor of its Board. No material may be reprinted or reproduced without permission.

©2013 Central Florida Palm & Cycad Society

The closing date for submission of material for the next issue is the 1st of the month preceding publication.

The Palmateer
 Central Florida Palm & Cycad Society
 3225 13th Street
 Vero Beach, Florida 32960-3825
 (772) 567-9587

Editor: John D. Kennedy
Palmateer@cfpacs.org

Directions to Faith Bishock's:

From north or south on I-75, take Exit 210, CR780 east, Fruitville Rd. Go straight on Fruitville Rd. for about 11 miles to Myakka Rd. (Name becomes Verna Rd. north of the intersection.) Turn right (south) on Myakka Rd. Continue on Myakka Rd., which bends and twists, for about 7 miles to Wilson Rd. Cross Wilson Rd. and it's now Hidden River Rd. About 500 feet below Wilson Rd, make the first left, which is a loop of Hidden River Road. Go to **4631 Hidden River Rd.**, it's back a bit.

From east on SR70, (Oneco-Myakka City Rd.) to Myakka City which is about 20 miles northwest of Arcadia on SR70. Go to Betts Rd., turn left (south). Continue on Betts Rd. which becomes Singletary Rd., deadending in about 2 miles into Verna Rd., about 6 miles from SR70. Turn left (south) on Verna. The street name changes to Myakka Rd. below the intersection with Fruitville Rd. Continue on winding Myakka Rd. for about 7 miles to Wilson Rd. Cross Wilson Rd. and the street is now Hidden River Rd. Turn left in about 500 feet for a loop of Hidden River Rd. Keep going to **4631 Hidden River Rd.**

Directions to Catherine and Joe Presley's:

From north or south on I-75, take Exit 210, CR780 east, Fruitville Rd. Go straight on Fruitville Rd. for about 11 miles to Verna Rd. (Below Fruitville Rd., the name changes to Myakka Rd.) Turn left (north) on Verna about a quarter of a mile to Winburn **Drive**. Turn right (east) on Winburn **Drive**, which splits ahead, keep left. First right turn (south) is **Winburn PLACE. 16409 Winburn Place.**

From east on SR70 (Oneco-Myakka Rd.), to Myakka City which is about 20 miles northwest of Arcadia on SR70. Go to Betts Rd., turn left (south). Continue on Betts Rd.

SEPTEMBER 14TH SCHEDULE –

10 a.m. - 11 a.m. - Board meeting, Faith Bishock's (All members welcome to attend)

11 a.m. - noon - Tour of Faith's place; tour guides: Rob Branch, Faith Bishock

12:15 - 2:30/3:00 - Joe and Catherine Presley's farm

12:30 - 1:30 - Caribbean barbecue, courtesy of the Presleys

1:00 - "Ground Covers and Other Companion Plants for Palms": Laurie Schiller, Florida Native Plants Nursery. Discussion, questions/answers from Laurie

1:30 – Auction: auctioneers Phil Stager & Rick Nale

2:00-2:30 - tour of Presley farm

2:30 (approximately) - Vendor sales

Plant donations for auction are welcome.

Vendors must have number from Treasurer; contact her if no number.

which becomes Singletary Rd, deadending in Verna Rd., about 6 miles from SR70. Turn left (south) on Verna . Turn left in about 2000 feet on Winburn **Drive**, which splits ahead, keep left. First right turn (south) is Winburn **PLACE. 16409 Winburn Place.**

Directions Bishock place to Presley place:

Leave the subdivision, go straight north on Myakka Road. Beyond the intersection with Fruitville Road, Myakka Road becomes Verna Road. Winburn **Drive** is on the right about a quarter of a mile north of Fruitville Rd. Winburn **Drive** splits, bear left. Winburn **PLACE** is the first right. Catherine and Joe Presley live about 4 miles from Faith Bishock.

MOTEL Suggestions, page 19.



Left, an early stop on The Tour. If those three people at the right weren't in the way, you could see the Editor's 1992 Honda, but the great CFPACS t-shirt is visible in the left foreground.

(Photo by Maryann Krisovitch)

Below, a typical vision of the surroundings of the Darnalls' Lake Placid house. The big palm is Livistona muelleri while the small one at left is Syagrus schizophylla.

(Photo by Sharol Diamond)

June Meeting Report

(Continued from page 1)

normal.

Maybe the rain will hold off until the afternoon. Since this is exactly what happens, how could we object? So, we are able to follow Walt around the Darnall acres (5.6 acres, to be exact), while he points out various and sundry palms and the occasional cycad for our delectation. Cathy, after a brief appearance outdoors to smile at the 40 or so folks, retires inside to work on the lunch (eats provided by the chapter from Publix) that require portioning out and setting up.

For some members trailing after Walt, taking care of so much by one person (himself) looks like--and pretty much is--a full-time occupation. It's beautiful and we all know that this does not occur by happenstance. The proprietor of the famous Palmz 'n' Weedz garden in Vero Beach feels faintly guilty—or is it aggrieved? No fair!

Woody areas and open areas. Hmmm.



Some folks with small house lots see all the space and feel envious. Walt's ambition, however, doesn't seem to be about packing it full of stuff. Lotta work. Don't see any debris anywhere, impressed. Hard work went into making it all so lovely for us.

A welcome visitor is IPS board member, Norman Bezona of Hawaii, just returned from a

(Continued on page 5)

June Meeting Report

(Continued from page 4)

trip to Trinidad and Tobago see if a post-Biennial excursion there would be a good idea. Yes. He has contributed an article to this issue. Our homeboy IPS board member and former CFPACS prez, Ray Hernández, knows just about everyone present today.

Our last visit here was in 2003, so we get to see what Walt has done in the interim, together with some sad tales of departed palms. “Wisdom comes through suffering,” (forgive another literary quote) and Walt clearly has been there.

Lunch, and everyone brought something from home, not all ‘boughten’. Indoors, first comers get the seats in the air conditioning, latecomers settle for the large screened patio. Then, back outside for more. The high point of the visit, sorry, Walt, approaches with the auction and plant sale. Particularly the auction.

On cue, the rain begins as Phil Stager begins the auction, not really heavy but enough to make the palms happy and Phil thoroughly soaked. The visitors crowd into the very large double garage where the food had been set out and make their bids in complete dryness. A few sprinkles and it’s the plant sale, so safe to venture out.

Did Mike Evans sell that pricey *Tahina spectabilis* or did he take it home with him? The crowd looked downscale to me (who sees \$20 as a top price), so I suspect the latter. As per usual, waving fronds in departing cars, SUVs, pickups.

And we thank Walt and Cathy for their very warm and gracious hospitality.

—John Kennedy

September 14th Meeting

(Continued from page 1)

A. crispa together with some uncommon *Livistona* species (*fulva*, *woodfordii*, and *chinensis* var. *subglobosa*). Hey, a good-sized *Corypha* for so far inland—and many others. Can’t forget the greenhouse full of tropicals, then there’s also the nursery. Yum.

Somewhere in the greenery, look for the spirit of John Bishock (just has to be there).

Our second and final stop of the day is a few minutes away from Faith’s, the farm of Catherine and Joe Presley. “Farm”? The address is 16409 Winburn Place, Sarasota. Visions of manicured lawns and prosperous men of a certain age in golf shirts, riding to their play. .

However, ‘farm’ is a correct term for the Presleys’ 5 acres. They raise Zebu cattle there, smaller than conventional beef and

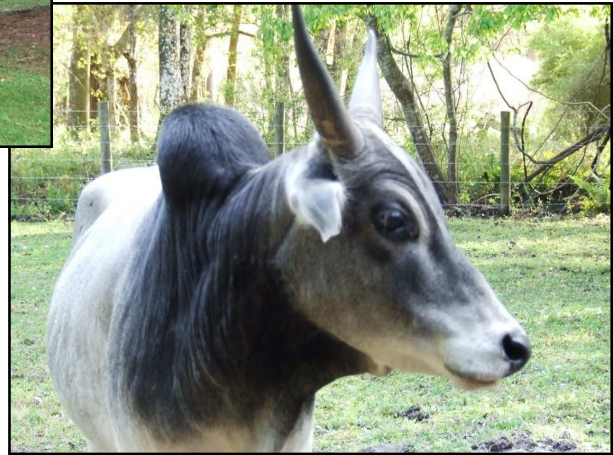
(Continued on page 6)



A vista at the ‘farm’ of Joe and Catherine Presley, our second stop on September 14th.



Left, the cabin at the Presleys'. Below, one of the Zebu cattle there.



September 14th Meeting

(Continued from page 5)

dairy cattle, 48 inches or less at the shoulder. Zebus are the sacred humped cows seen in pictures of India and are noted as gentle and mild-tempered, even the bulls. Some poultry, too, and the cabin—not 'house'—is reminiscent of what might be visible in Marjorie Kinnan Rawlings' hamlet of Cross Creek near Gainesville. There's a bamboo collection, too, on a property the owners have had for about 5 years. So, a work in progress.

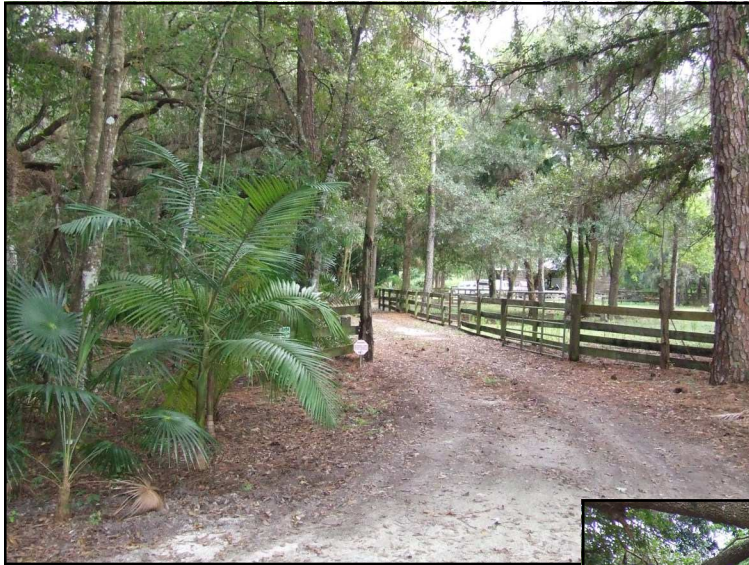
Palms! Yes, palms, too, and a *Rhapis* house, containing a collection of species in that genus.

But first on our itinerary at the Presleys' is lunch, then The Tour. Lunch, provided by the Presleys, is a Caribbean barbecue: pulled pork smoked for 10-12 hours with home-grown hickory chips, black beans and rice. Beverages provided, bring your appetites! The sides will be vegetarian-friendly, so plenty to eat for everyone. The plant auction and sale will follow the tour. Catherine and Joe will also have plants for sale.

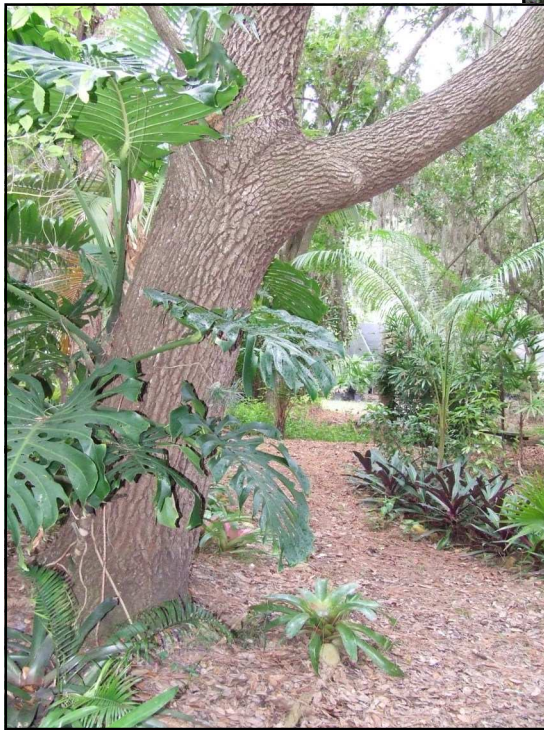
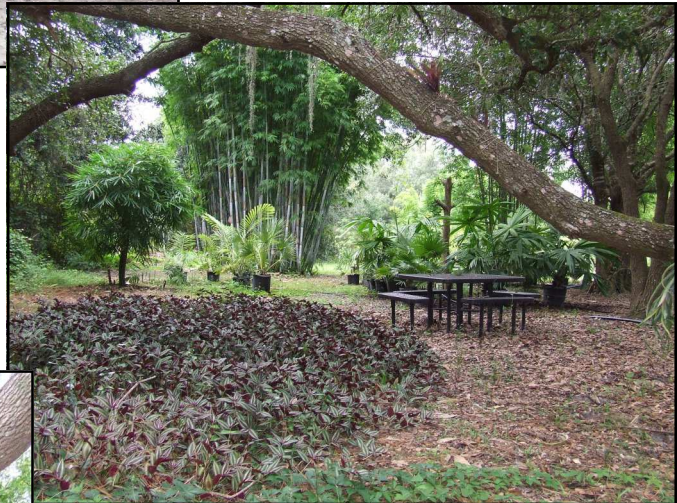
Bring a chair for yourself, there may not be enough seats for all. —John Kennedy



Wildlife seen at the Presley property: bald eagles.



*Left, the welcoming entry to Joe & Catherine Presley's place.
Below, a view of the property.
Note palms in pots waiting for planting.
(Photos by Catherine Presley)*



A pleasant walk in the garden at the Presleys'. Is that a young Royal along the path?

Effect of Water and Elevation on Nighttime Low Temperatures

Royal Palms on Lake Lotela in Avon Park. Note the lake in the left background. Zone 10 palms planted in the area tend to be these two species, possibly because few others are available for sale locally. In front of the house, a nice multiple Phoenix roebelenii.



By Walt Darnall

Lake Effect

Most of us back yard palm enthusiasts who have been gardening in central Florida for any appreciable length of time know that growing cold tender species of palms (and plants) in proximity to large bodies of water, e.g., Atlantic Ocean, Gulf of Mexico, lakes, rivers, etc., that such water bodies afford the land around them with higher nighttime temperatures than locations more distant but at the same general latitude.

It's just a matter of physics. Water has a much, much higher heat capacity and thermal inertia than compared to air. During the winter months, while daytime air temperatures might significantly exceed that of a body of water, once the sun goes down the air will give up its heat very fast, whereas water is much slower to give up its heat,

since by volume, water contains more than 3,000 times the amount of heat capacity than air by volume.

On radiational cooling nights (which have little or no wind with clear sky, and ground heat radiates upward into the atmosphere), once the sun goes down the air temperature will start to drop very fast until the air temperature reaches the same temperature as a large body of water. At that point, heat flow will radiate out from the water, warming the surrounding air (over the nearby land) moderating the air and slowing down the rate of temperature drop, whereas areas farther away (that don't receive the heat effect of water) the temperature will fall faster, and ultimately lower.

The heating value of most bodies of water is far more substantial at the beginning of winter than it is near the end of winter. This is mainly due to the bodies of water eventually



These Coconut Palms are in Lake Placid. Walt notes that most of these are planted right on the lake shore or very close.

cooling down over the course of the winter from polar invasions of cold air, and also as a result of decreased solar radiation as a result of shortened day lengths and more oblique (less direct) solar rays due to the earth's tilting away from the sun during the winter months.

I've read that many of the sink-hole formed lakes in my county have water temperatures in the high 60s during the winter months. I think two factors that keep wintertime lake water temperatures this high is because most lakes are tied into the ground water table (ground water is probably in the mid 70s), plus the lakes absorb lots of solar radiation to keep them relatively warm. However, since these bodies of water are relatively small compared to the ocean and Gulf, they can lose their heat faster during a prolonged cold spell. This was the case back in January

and December of 2010, when most of Florida had protracted cold periods.

My property is about one mile from the nearest large lake; hence, it receives no thermal benefit from it. I do have a good friend that lives within 300 feet of the second largest lake (3,504 acres in area) in my county. We have been comparing nighttime low temperatures during the most extreme cold events for the past seven years.

During the December 2010 cold event we would compare our nighttime low temperatures. When the cold event first started I was recording nighttime lows up to 15 degrees colder than at my friend's house.. But, by the end of winter, after the lake water cooled down, our nighttime lows were within a few degrees of each other. But by then the brunt of the winter was over and temperatures were on the rise.

Elevation Effect

Elevated land can also have a marked warming effect on nighttime low temperatures. The protracted cold weather event of December of 2010 gave me an empirical understanding of the effect of elevation, better than what I heretofore knew it to be.

I live just off the east side of the Lake Wales Ridge (in Highlands County near the town of Lake Placid, Florida) which runs down the

(Continued on page 10)



Coconut Palms at a health club in Sebring, on high elevation not near a lake. The palms were planted 'big' 6-7 years ago, were badly damaged in the winter, 2010, but recovered quickly. (Photos for this article taken by Walt Darnall)

Effect of Water and Elevation

(Continued from page 9)

spine of central Florida. Portions of the ridge have the highest elevations in peninsular Florida, in some places more than 300 feet elevation above sea level. I can state empirically that areas on the highest parts of the ridge run markedly warmer than the outlying areas down off the ridge. Based on my nighttime low temperature readings taken from numerous sources over the past 15 years (and comparing them to my lows), I conclude that areas on top of the ridge enjoy at least a half to a three-quarters USDA hardiness zone advantage than my location at the same latitude. My property, based on 15 years of winter low temperature averages, is USDA hardiness zone 9b (bottom end). Up on the ridge the zone is a solid 10a.

My property is located about one mile (as the crow flies) N.E. of the town of Lake Placid, Florida. From the elevations shown of

topography maps I have, the town averages about 70 feet higher in elevation than at my place. At this elevation the town is in the warmer inversion-layer of air during the night. At night, warm air rises up into town and colder air drains off to the lower ground -- down to my place!

The town of Lake Placid, in addition to being at a higher elevation than the surrounding area, is also surrounded by at least 12 lakes. As such, I believe heat from these lakes waft up into town at night, augmenting the effect of elevation.

During the protracted cold weather event of December 2010, I had six nights where my low temperature dropped below 30 degrees. Three of those nights dropped below 25 degrees, with the coldest of those nights dropping to 20.8 degrees -- my all-time lowest temperature in the 16 years I've lived here! Needless to say, virtually all my unprotected (and in the open yard) zone 10+ palms and

Ravenea rivularis, in the Sun 'N' Lakes subdivision in Lake Placid. Another multiple Pygmy Date Palm out front.



plants were all but wiped out. The same palms and plants in my more protected wooded areas fared better, but still had significant damage; this was mainly due to higher temperatures within the wooded tree canopy and far less frost.

During the December 2010 cold spell I would venture up into town every few days to check on the status of many tender (zone 10+) palms, trees, and shrubs. While my garden incurred lots of damage as the days went by, I was not seeing such damage up in town. I saw no defoliation at all of very large mango trees, assorted *Ficus* species, huge *Hibiscus tiliaceus* trees, or even papaya plants (a good below freezing and frost indicator plant). Even the few *Roystonea regia* palms in town weren't damaged. However, coconut palms did receive damage, but they weren't defoliated for the most part. Rather, they incurred long-term cold damage due to low (but not freezing) temperatures by exhibiting potassium deficient older fronds and manganese deficient stunted new spring

fronds. These same palms completely recovered and are the picture of health today.

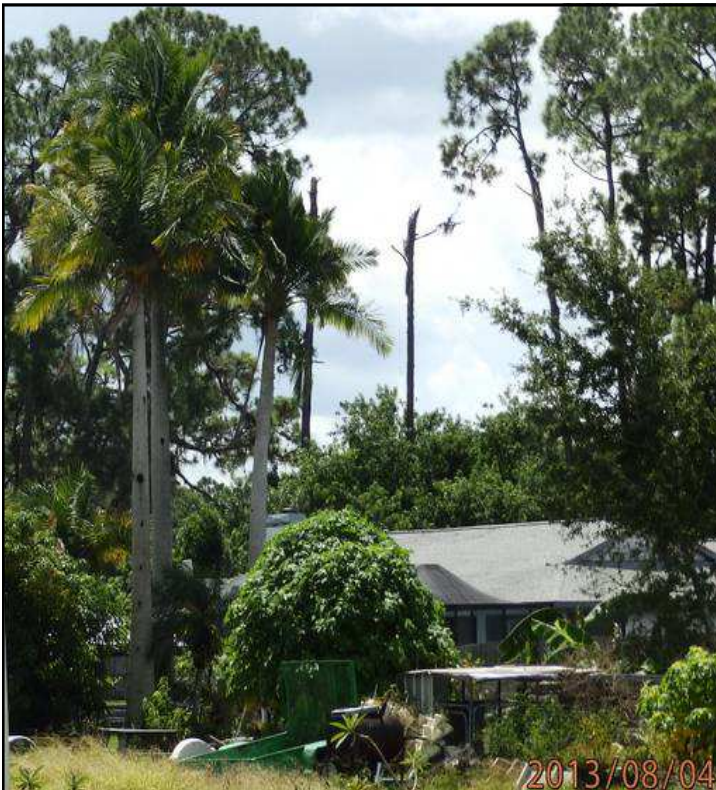
After the winter of 2010-2011 was over with, I drove around many of the lakes surrounding the town of Lake Placid to assess the winter damage to zone 10 species of palms. I would estimate that maybe 10% of *Cocos nucifera* palms growing close to the lakes died, some with up to 10 feet of trunk. Farther out from the lake, say one block or more, that percentage was higher. This included the death of many *Adonidia* and *Wodyetia bifurcata* palms. Fortunately, no *Cocos nucifera* up in town died. My theory on that is, that the lake water temperatures cooled down from 10-11 straight days of abnormally cold weather, and by the end of that period offered much less heating effect to the surrounding air. On the other hand, up in town, in the warmer inversion air layer, it was slightly warmer at night than at lake side.

(Continued on page 12)

Effect of Water and Elevation

(Continued from page 11)

The winter of 2012 to 2013 was above normal and my lowest temperature never dropped below freezing. On the coldest morning I decided to run a test. My wife was leaving for work around 6:30 a.m. As she left the house and pulled out of our driveway, the car's outside thermometer read 33 degrees. It stayed at 33 degrees until she started to leave our subdivision and ascend the long hill up to US 27 that runs on top of the ridge. My wife was on her cell phone, I on the house phone. As Cathy ascended the hill the car's outside thermometer started to rise, and she read off the rising temperatures: 34 degrees, 35 degrees, 36 degrees, etc., until she got to US 27 and on top of the ridge, where she said the thermometer read 39 degrees! Testament to the benefit of elevation!



In closing, I wish I knew then (when I bought my property) what I know now! When my wife and I moved from Maryland to Highlands County in 1997 we only wanted to escape ice and snow. Growing palms had no influence on our decision in purchasing our property. We only wanted some relative seclusion and privacy. Growing a few palms was only an incidental consideration. It wasn't until I came into contact with CFPACS members (e.g., Dave Witt, Ray Hernandez, and John Bishock) that I caught the palm fever.

During our property search we even looked at a vacant lake front property. We passed it up due to the high selling price and the much higher property taxes that accompanied it. However, I remember looking at a five acre overgrown parcel on high ground and between two large lakes. While I turned it down in favor of my present property, in hindsight, based on what I know now, the other property would have been the more desirable of the two in terms of growing zone 10 palms, as it would have had the benefit of being on high ground, plus receiving some influence from rising lake water heat.

And, I guess I should mention, many years ago I selfishly (because of my love of palm growing) tried to entertain my wife with the idea of moving to a higher ground location--but she told me to forget about it, we are staying right here until we start pushing up daisies--and/or I start pushing up palm seedlings!

*Left, that's **three** Majesty Palms towering over a Lake Placid house.*

THE TROPICAL WORLD IN OUR HAWAIIAN GARDENS

By Norman Bezona

University of Hawaii College of Agriculture (UHCTAHR)

[Norman Bezona is an IPS board member from Hawaii who attended our June meeting in Lake Placid. He wrote this for West Hawaii Today and for Hawaii Tribune Herald, June 30th. It is reprinted here by permission.]

What would a tropical garden be without bamboos, palms, orchids, bromeliads and the banana family? These luxuriant plant materials are a natural component of the humid tropics, but have become a valuable element in subtropical and even more northerly climates. Can you imagine Hawaiian gardens without mango, avocado, citrus or breadfruit?

Voltaire Moise and I just returned from a scouting adventure in the Republic of Trinidad and Tobago. The purpose was to check out these islands for a tour in conjunction with the International Palm Society Biennial meeting May 25th to 31st, 2014 in Miami, Florida. Other tours held before and after the meeting will include the Amazon, Cuba and all around Florida. The focus will be on palms of these regions but also will include studies of the overall plant, animal and human diversity. Protection and education about the value of the ecosystems is also a priority. For information on the International Palm Society and its efforts, check out it's website. You can also contact our local chapter by calling Tim Brian, president at 333-5626. The website is www.hawaiiislandpalmsociety.com.

Trinidad and Tobago are as different as day and night both in their biology and culture. Trinidad's human population is roughly 40% of African origin, 40% Indian, and 20% other



Silver Thatch Palm (Thrinax argentea) on Speyside Bay, Tobago. (Photo by Voltaire Moise)

including Near Eastern and Chinese. These statistics are misleading though because these cultures mix freely and consider themselves proudly to be "Trini". The feeling of Trinidad to a visitor is that the cultural mix is weighted toward Indian. Some of the best Indian food I have eaten was there. Tobago is heavily influenced by folks originally from Africa.

Trinidad is half the size of the Big Island and up until 11,000 years ago was attached to South America, so the plant and animal diversity of the island is similar to what is today Venezuela. This includes snakes some of which are poisonous, and hundreds of species of birds and reptiles. Tobago on the other hand is more typical of the West Indian islands and has no poisonous snakes. It is about the size of Molokai.

On Trinidad, our main base was the Asa Wright Nature Center which is located in the mountains of the Northern Range. The accommodations are good and one could

(Continued on page 18)

I Won the Florida Lotto! Well, Almost. . .

By Rick Leitner, Ft. Lauderdale

My partner, Craig, plays the Florida Lotto, Fantasy Five, Powerball religiously. In fact, the cashier at the 7-11 even knows him by name. Personally, I think it's a waste of money and time. His reply? "You can't win if you don't play." That lotto motto hit me like a quick pick. Although I am not much of a gambler, one could say that I hold the same philosophy with palms. If you don't try, how do you know whether or not they will be successful in your garden?

When taking a tour of a garden, most of us would have a tendency to look upward. I think it's only human nature to be attracted to the larger, more stately palms. However, I have found that the real winners may often be tucked closer to the ground. These diminutive palms are often overlooked for fear that they lack impact as well as not being familiar with how these palms will react to Central Florida's climate and soils.

I'll showcase a few palms that I had dismissed as well. However, they've proven to be real winners. Give the following palms a try, and I'm confident that they are worth the effort and nurturing.

Chamaedorea brachypoda

This palm native to Honduras, loves humid warmth and shade. This needs some shelter in those cold northwestern winter winds, so keeping it in a container may be best. Mine is in a large glazed container with well drained soil and is heavily mulched. Acidic fertilizer keeps this beauty deep green and growing well. It is slow to gain size, and creeps with rootstocks to reach out and up from the mother plant. I've had my cultivar "Teddy Buhler" as a gift from the late Paul Drummond for 20 years.

Chamaedorea fragrans

This shade-loving palm is native to the mountain rain forests of the Andes in Peru. The flowers are very fragrant giving this species its name. Many mistake this small palm for a miniature bamboo, but upon closer inspection it is without a doubt a true *Chamaedorea*. This palm is an acid lover as well as humidity. An indoor situation that can offer this as well may see this palm thrive. Watch for mealybugs on this palm, especially when indoors.

Loxococcus rupicola

This monotypic is native to Sri Lanka and is highly endangered due to its habitat loss. A very slow grower, but the emergent frond is a nice red/bronze color. Eventually it will



Chamaedorea brachypoda eventually has pencil-thin stems that are 6-8 feet high.



Chamaedorea fragrans has—yes—fragrant flowers.

grow into a large palm in Sri Lanka, but it is doubtful if the palm in cultivation would reach this height. The palm may be hard to obtain, but if you find one, pick it up. I've had great luck in my garden, even with a low of 38F. However, much lower than this you would have to protect it.

Calypstrocalyx albertisianus

This is a small palm that, with a proper environment, eventually grows into a medium size gem. This palm's most prominent characteristic is the emergent maroon frond. This color rivals the best colored frond of a mature *Chamberyonia macrocarpa*. Give it some morning sun, afternoon shade and a lot of moisture with heavy mulch. It also enjoys a slightly acidic soil and should be protected from temperatures below 40F.

Heterospathe scitula

When you think of *Heterospathe*, do you think of a large palm? This small clustering palm is not often available, but I found a few

potted specimens at a local nursery, and if you see one, pick it up. It is endangered from the Philippine rainforests which provide deep shade. Needing regular moisture, it would do best in a protected, heavily mulched, rich, but well drained acid soil. The surprising benefit is that like most all *Heterospathes*, the emergent frond is bronze. This would prove to be an excellent containerized palm, however I've planted my in the ground. This palm is definitely worth trying as a specimen palm in a spot that allows it to stand alone.

The next time you see a palm that you immediately dismiss, think about the lotto again. The palm can be a winner for sure, but only if you take it home and try it. Otherwise, how will you know?



Loxococcus rupicola, another unsung gem. Pictures of *Calypstrocalyx albertisianus* and of *Heterospathe scitula* are on next page.

(Photos by Rick Leitner)



Calyptrocalyx albertisianus, above, has a striking new leaf even on a small, young palm. Above, right, Heterospathe scitula is a small clumping species unlike the better-known larger single species in the genus.



*Right, a nice Satakentia liukiuensis on the Palm Walk at Heathcote Botanical Gardens in Fort Pierce. See page 18 for story.
(Photo by John Kennedy)*

*John's Monthly Mystery Palm: **What is It?***



Bought long ago—15 years, minimum—and planted as a mere wisp, as supposedly something now forgotten, that it wasn't. Could it be a Green Bismarckia? Very short trunk, hey, 8 inches! Slow. Petioles with rough edges, not spines. All votes will be tallied and the majority belief will be announced in the next issue of this august publication.



Our Tropical World in Hawaiian Gardens

(Continued from page 13)

spend all the time there watching squirrel cuckoos, toucans and parrots fly by while a dozen species of hummingbirds flit to and fro. However, Asa Wright has tours all over the island to swamps, marshes, rainforests, savannahs and even to visit the wildlife of Port of Spain.

On Tobago, our main base was the Blue Waters Inn at Speyside Bay. From there we traveled all over the island, but you could just stay there with the ocean lapping at your front door for a restful vacation. Diving, snorkeling and boating to Little Tobago Bird Sanctuary are also on the venue.

If you want to check out details on this eco adventure you may contact Larry Libowitz at Caligo Tours. The toll free number is 800 426 7781 or larry@caligotours.com.

These islands are very involved in protecting their native ecosystems with over 40% of the land in protected forest watershed reserves, but they also recognize the value of non native species that provide food and shelter for the great variety of animal and bird species.

Like Trinidad, we in Hawaii know how important it is that we protect and utilize our native plants, but let us not forget the role that so called alien species play in our lives. We depend on non native plants for almost every agricultural commodity we eat, wear or otherwise use. In fact, the Hawaiian civilization could not have flourished without the non native plants they brought with them.

On our return from the Caribbean, we spent several days in South Florida. I was especially impressed with the use of these tropical plant materials to create the ambiance of the tropics in locations that were originally pine flats and sawgrass marshes. The variety of



*Silver Thatch Palm, Speyside Bay, Tobago.
(Photo by Voltaire Moise)*

new plants being used is amazing, and much of the new material made available is due to the efforts of horticultural societies that focus on palms, bamboos and other families of tropicals. For example, there are hundreds of species of palms that have been discovered and are now grown in South Florida. Floridians are proud to note that they can grow far more species than even California. When it comes to bamboos, I visited several growers in South and Central Florida that sold over a hundred species. Tornello Nursery of Ruskin, Florida is the largest bamboo nursery in the U.S. and ships all over the world.

Next year's palm conference will include exploration of the jungles of the Amazon. Last time I was there I saw a tremendous number of plants that I could only identify by family. Many had ornamental qualities and have not been utilized in landscaping.

When it comes to bamboos, I saw Guadua bamboo groves for hundreds of miles bordering the Amazon. The growth habits, lead me to suspect there are many forms and more than one species. Some were only-

(Continued on page 19)

Our Tropical World in Hawaiian Gardens

(Continued from page 18)

about 30 feet tall and some well over 60 feet. Some had very fine foliage and some heavier leaves. One sad note was to see all the logging and clearing going on for short term profits. Many species may disappear before we even know they existed.

After visiting the Caribbean and the Amazona, I realize, we have barely tapped the potential for new plant materials, including bamboo in Hawaii. Our climate has the extreme variations and much better suited than either California or Florida to grow these spectacular exotics. Thanks to horticultural societies and members like Peter Berg, Susan Ruskin, Jeff Marcus, and many others too numerous to mention here, Hawaii is a "Noah's Ark" for plants endangered in other parts of our tropical world.

Let's not forget that we live in a global ecosystem. As climate change becomes more impactful, species on the verge of extinction in some part of this system may survive and even thrive because of the efforts of botanists, naturalists, horticulturists and garden enthusiasts. Plant and protect our native plants, but don't forget the vast array of exotics that we can enjoy as well.

Are you interested in volunteer work? If so—and assuming you are conscientious and careful—we have an opening for you to do good in a non-profit organization: Us, Central Florida Palm & Cycad Society. We know you like plants, we know you like palms and cycads. Here's your chance to help spread our members' bounty to each other and to a wider array of potential seed purchasers. Come be the Seed Bank Coordinator. For details and information, contact Lucinda McCartney, palmresident7@gmail.com

For Those Who Wish to Stay the Night

The closest motel is **AmericInn Hotel & Suites**, 5931 Fruitville Rd., right off I-75 Exit 210 at CR 780, (941) 342-8778. <http://americinnsarasotahotel.com>

Sun-N-Fun Resort & Campground, 7125 Fruitville Rd., (941) 371-2505. <http://sunfunfl.com>

At Exit 213, about 5 miles north of Fruitville Rd., are **Holiday Inn Sarasota-Lakewood Ranch** (941) 371-1900 and **Fairfield Inn & Suites Sarasota-Lakewood Ranch** (941) 552-4000.

Myakka State Park has cabin rentals: <http://myakkariver.org/index.php/activities>.

There is a **Holiday Inn Express** in Arcadia, about 40 miles east of the meeting places on SR70.



Sabal palmetto 'Lisa' in bloom at Kopsick in St. Pete. (Photo by Rick Nale)

 * High Noon at Heathcote *
 * **Botanical Garden Problems in Fort Pierce** *
 * *****



In mid-July, Heathcote Botanical Gardens in Fort Pierce announced that it would close at summer’s end. A big shock, of course, but not entirely a surprise to those aware of its continuing financial problems.

Heathcote is a private corporation, not public. It receives no money for operational expenses from any level of government, in this case neither the City of Fort Pierce nor St. Lucie County. Yes, some occasional grants for specific projects but nothing to pay the electric bill or toward the salaries of its two employees. Memberships and admissions to special events have not covered costs. There has been no permanent director since 2004 but a series of temporary directors fill-

ing in the spot. Miriam Charles is the new acting director.

The 5-acre garden was slated in 2007 to expand to a nearby public works property that was to be closed. A 63-acre addition to the garden would have been established, adjacent to a greenway. This plan, in cooperation with state and local government, was suspended in 2012 partially as a result of the weakened economy with consequent budget cuts by state and local government and partially owing to Heathcote’s financial problems.

After the announcement of closure, there was an outpouring of donations to Heathcote, enough (anyway) to keep the garden



Taken from below, the iconic 30-foot Gru-gru Palm in the Palm Walk at Heathcote Botanical Gardens. But not close to the walkway, fortunately. Opposite page, a shady vista at HBG, triple-headed Sabal palmetto in the distant background..

(Photos by John Kennedy)

open for the immediate future.

Heathcote is a small gem kept in pristine condition by 100 unpaid volunteers. Its most notable collection, added two years ago, is the James J. Smith Bonsai Gallery, the biggest collection on public view in the U. S—more than 100 trees. There's also a Palm Walk with a goodly number of species. The cycad collection, a bequest, is also quite good. There is a Japanese Garden (with small-scale teahouse), a native plant collection, and a replica of a 19th-century Florida pioneer house. (The early settlers didn't live big.)

Currently, a children's vegetable garden is an ongoing project. A rainforest area contains a new and pretty water feature.

Heathcote was visited by the chapter in its quarterly meeting, March 13, 2004, with further stops at Ed Carlson's place in Vero Beach and the Michael property in northern Indian River County. Not much more than a year later, Heathcote held a reception for John Dowe during his CFPACS presentations August 26-27, 2005, at Indian River State College in Fort Pierce. A *Ptychosperma macar-*

thuri was planted at Heathcote in his honor.

This year, the Fall Garden Sale is November 23rd and 24th. Other events include a Halloween special: "Zombies in the Garden" on October 31st. One Saturday a month is a Pioneer Family Day with workshops and arts & crafts from an earlier time. More recruits to the volunteer corps are welcome; a number are from Indian River and Martin Counties.

Anyone wishing additional information can contact Heathcote Botanical Gardens, 210 Savannah Road, Fort Pierce, FL 34982, (772) 464-4672, or

<http://heathcotebotanicalgardens.org>

Heathcote is one block east of U.S.#1, two blocks below the Virginia Avenue-U.S.#1 intersection.

—John Kennedy

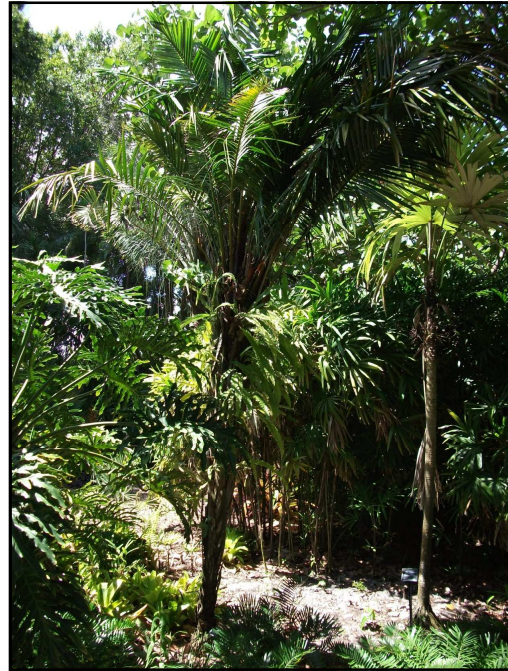
The Whitefly Menace

Of course, we need yet another problem with palms. While not exactly new, this whitefly species has been for several years a problem in South Florida but not in Central Florida. However, Rugose Spiraling Whitefly has recently extended its range northward to us. The sooty black mold that results from the insect's secretions is unsightly on the leaves; there is also a sticky drip on whatever is below.

Palms are not the only host. It apparently has a specific appetite for Gumbo Limbo trees, but also infests bananas, copperleaf, cocoplum, mango, liveoak, wax myrtle—to name only a few. While there are several other species of whitefly around, this one is different and, says Miami-Dade extension office (with several years of experience with the pest), that homeowners should not panic.

Spiraling (Gumbo Limbo) Rugose Whitefly is not as bad as some of the other species of whitefly and has not, so far, been seen to cause plant death or severe branch dieback. Identification can be made by eggs laid in a spiral pattern on the underside of leaves/leaflets. The hatched whitefly is large and slow moving.

What to do? According to the extension office, small plants should be washed off with a stream of water, then followed up with insecticidal soap or horticultural oil sprayed once a week for two or three weeks. For larger plants (or smaller plants that are heavily infested), the process is not as easy, so systemic insecticides are suggested. The label should indicate that the particular insecticide is for whitefly. And the results may not be apparent for several weeks. But don't use any stronger or more frequent dosage than the label says, lest you damage the plant



Syagrus schizophylla on the Palm Walk at Heathcote Botanical Gardens, Fort Pierce, about 10 feet high. (Photo by John Kennedy)

while trying to kill off the pest.

Recommended for contact spraying—as least toxic to natural enemies—are BioNeem (Bonide), Neem Oil (Green Light, Southern Ag); Organicide; Ultra-fine Horticultural Oil (Sunspray and others). Systemics include Tree & Shrub Control with Safari (Green Light); also Bayer Advanced. These are not to be used on fruit trees. Another list of products to use on fruit-bearing plants is given. The website has more detail: http://miami-dade.ifas.ufl.edu/Pests_HT.shtml#Gumbo **A tip** found elsewhere suggests that infestation is cyclical and can be highest where the pest has not previously occurred, that the level will go down as natural enemies find a new source of nutrition. And, of course, it's possible with spraying and systemics to kill the whitefly predators, too.

—John Kennedy

Tips and Tools

The Fertileeze Drop Tube Applicator

[This article was published in The Cycad Newsletter, December 2012-March 2013 issue, and is reprinted here with the permission of the author and of the Editor]

By Tom Broome

Many years ago, when I first wanted to start a nursery, I worked in a local wholesale woody ornamental (landscape plant) nursery to learn the business. It mostly produced one - and three-gallon container plants on 12 acres, and I had to fertilize them all; I was allowed to use a Scott's drop tube applicator. Later, when I started my own nursery in 1986, I bought my own. I had the same kind of nursery as I worked in, and had about 30,000 plants in inventory. I was able to fertilize all the plants in the nursery in just one day!

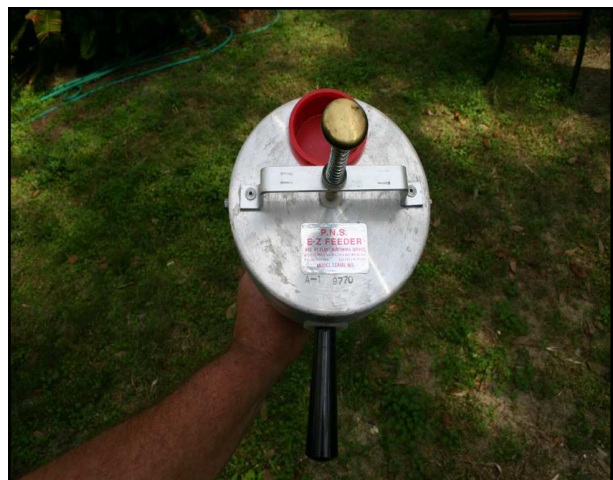
The Scott's drop tube applicator had a storage bin with a strap on it to put over your shoulder for support. Each time you cranked its handle, a specific amount of fertilizer came out. You could change inserts to apply different amounts of fertilizer. The action was perfect and you knew you were getting exactly the amount of fertilizer you wanted. The fertilizer ran down a tube, which you positioned above each pot to fertilize it without having to bend down. I could reach over five or six pots to access the one I wanted to fertilize; with practice, I was able to fertilize two pots per second. While this may not be that important for someone who doesn't have thousands of plants to fertilize, being able to accurately apply fertilizer where you want,

(Continued on page 24)



Above: "This is what's left of my Scott's Drop Tube Fertilizer."

Below, the P.N.S. EZ Feeder, side view. Bottom, view of top surface.



Drop Tube Applicator

(Continued from page 23)

without hitting the plants, not having to bend over, and being able to reach the plants easily, was amazing. In the case of spiny cycads, the fertilizer can be applied between the leaves, exactly where it's wanted, without getting cut up by spines. In a nursery situation, I can do the work of at least four people. I also used it to fertilize people's landscapes and could do a fairly extensive landscape in a matter of minutes. It was one of the greatest tools I have ever owned.

Alas, all things had to come to an end. After 13 years, the plastic storage bin became brittle from sun exposure and broke, and the area around the inserts got so corroded that the inserts couldn't be changed. I found out that Scott's no longer made the applicator because they didn't sell that many units, saying customers felt they were too expensive. I never understood that, because a large nursery could save the cost of the applicator the first week it was used, compared to someone doing the same job by hand. To me, being able to put the fertilizer in the exact spot I wanted to, and not getting cut up by spiny cycad leaves was worth the price in one day.

At the next local trade show, someone was selling something close to my unit, but a lot simpler. It was called the P.N.S. EZ Feeder. It was all metal on the outside, so I wouldn't have the same problem with the bin going bad. At least it would last a long time. It was priced about the same, around \$100. A drawback to this device was that the holding bin was about one third of the volume of my first applicator. This unit worked by pushing down the plunger on the top. A piston would move down and release one teaspoon of fertilizer per plunge. It was not as versatile as



"Here is the Fertileeze system. My kit came with two of the holding jugs with caps, the drop tube assembly, and the funnel, which makes filling the holding jug much easier."

my Scott's applicator, but luckily, the application rate for my Cycad Special is one teaspoon per gallon-sized container. It was clumsy to fertilize the 15- and 25-gallon containers one teaspoon at a time. After using it for a few days, I found that the amount of fertilizer being released varied. If you moved the plunger up and down really fast, it would put out a fairly accurate amount. If you did it slowly, more would come out when the plunger was all the way down. There were small brushes inside the unit that were supposed to keep the extra fertilizer from going down, but they didn't do a very good job. I had to stop using it because I couldn't trust how much fertilizer was being supplied, and sometimes it wouldn't release any fertilizer



Tom Broome, armed and ready to go to work fertilizing his cycads.

at all.

For more than ten years, I have not had a drop tube applicator to use and had to go basic. I took the tube and funnel setup from the EZ Feeder, and would hold that up while I measured the fertilizer with a measuring spoon, also holding a quart-sized measuring cup full of fertilizer. At least I could fertilize my plants from a distance and not have to bend down to accurately apply the fertilizer. **Last year**, at the big trade show in Orlando, some people were selling the Fertileeze drop tube applicator. The parts that make up this system are very basic. The holding bin is not unlike a gallon milk jug, but made of slightly better quality plastic compared to actual milk jugs. You are supplied with a funnel to help you fill the bin with fertilizer, and, except for the threads on the end, it looks like the top of a gallon bleach container. The shaft of the tube is PVC, but more importantly, the way this area is constructed makes it work well. You push the tube about an inch toward the receptacle. When the bin has fertilizer in it and the tube is also full, pushing the tube up displaces a certain

amount of fertilizer through the bottom of the tube.

At the bottom of the tube, there is a hatch composed of several triangular pieces of an unidentifiable material that almost meet the others. It looks very much like the hatch on cycad seeds such as those of *Encephalartos* species (radiospermic seeds). This seems as though it would be the weak link in the system, but I have put about three-hundred pounds of fertilizer through this applicator so far, and it is still working perfectly. I was told that replacement parts were available if the applicator ever failed, but that shouldn't happen for many years. It isn't as versatile as the Scott's applicator, but at least this one is adjustable.

Toward the top of the tube is a slot that allows you to push the tube up, thus pushing the fertilizer through. There is a plastic clip that can be put in the slot to make the open area smaller. This makes the distance you push up smaller. They have calibrated this area so that when the clip is off, it will apply exactly one tablespoon of fertilizer. When the clip is on, it applies one teaspoon of fertilizer. As I said before, my Cycad Special fertilizer application rate is one teaspoon per gallon container, so I can fertilize any of the gallon containers with one push, and I can also take the same amount of time to fertilize the three-gallon containers.

Besides cycads, I grow a lot of terrestrial bromeliads in the genus *Dyckia*, many of which are just as spiny as the sharpest cycads, and the majority of these are three- and seven-gallon sizes. The soil level in most of my seven-gallon plants might be an inch low, so two pumps of the tube is perfect for those. A week ago, I timed myself and found that I

(Continued on page 26)



Faith Bishock admiring a *Rhopalostylis*

OK, but where. . . ?

Drop Tube Applicator

(Continued from page 25)

had fertilized 240 seven-gallon *Dyckia* plants in just over five minutes.

I am happy with my Fertileeze drop tube applicator and thought something like this might be very helpful to many of our members. I'm not getting any younger, and not having to bend down to put a few table-spoons of fertilizer in each container helps me considerably. The speed and accuracy of measuring the fertilizer really speeds things up. I have caught myself not being exact when I was using the measuring spoons.

The Fertileeze people are selling these for \$97.50. They have a website (<http://www.fertileeze.com>) if you are interested in locating one of these useful gadgets.

Author's note: I should mention that I don't have any ties with the Fertileeze people; I am just a satisfied customer who is willing to tell others when I find a good thing.

From the Editor's Desk

A real treat on September 14th: we get to visit Faith Bishock's lovely place to see what she has done since our last visit in December 2009. I bought a *Calyptronoma rivalis* from her then which croaked about 18 months later. This was my second futile attempt with the species, my policy that failure twice means don't try a third time.

Not far from Faith's is the new property of Catherine and Joe Presley. We've never been there before, so we can get in on its foundation plantings and—warning the owners—we'll return for inspection some years down the line just to see what's been planted in the interim. And with Faith's as a nearby example, Catherine and Joe can see what's possible—which is very helpful. Not only palms and bamboos on display (the bamboo looks pretty big in the pictures), but also livestock. The Presleys raise Zebu, the small, humped Indian holy cows that can take Florida heat, and also some poultry. There's a numbered Sarasota street address, I think the property is just over the eastern line from Manatee County, but it sure doesn't look the Sarasota we are familiar with. In addition, we get to eat lunch there, pork barbecue, courtesy of the Presleys, with side dishes suitable for vegans. Remember to bring a lawn chair so you can be sure of a seat.

Madame President Lucinda celebrates in her message (page 40) a re-invigorating rainy season from her eyrie on Sned Island in Manatee County. Through June and July, 35 inches of rain, ending a drought. I haven't asked if her abode is an anchored house-

(Continued on page 27)

From the Editor's Desk

(Continued from page 26)

boat, or merely a craft on which she is presently gathering two of every creature. Here on the lower end of Central Florida's east coast, there has been considerably less rain, about 13 inches total officially recorded for Vero Beach in the June and July period, and so far (up to August 13th), only an official tenth of an inch, though the Kennedy ménage has seen maybe 2 inches in August. No complaints, still above last summer's miserable deficit. And, of course, our unofficial gauge—the hole at the end of the driveway that collects rainfall—would indicate a considerably higher total than that officially recorded at the airport, 3 miles away, or in the gauge on the fencepost out back. **We need** a new Seed Bank Coordinator. Dottie Kellogg has filled the role for this year but now is retiring. She has agreed to continue until her successor is named. The Seed Bank Coordinator receives the seeds donated to our chapter and publicizes seed offerings about monthly in summer and more infrequently in the rest of the year. When an order is received, the Coordinator mails seed to the buyer with an invoice. No money is handled; payment goes to Treasurer Maryann Krisovitch. Anyone interested in taking on this vital job should contact Lucinda McCartney(palm.president7@gmail.com). **Tom Broome** has contributed two articles for this issue. The first, on a fertilizer applicator, is interesting and helpful. But the second, on using coffee grounds and spray to kill Asian cycad scale is of more immediate use for our members. See page 32. Tom has been recommending the practice for over five years now, but provides more detail and evidence

SALES

Palm Beach Palm & Cycad Society Fall Sale
Mounts Botanical Garden,
531 N. Military Trail, West Palm Beach
October 12—9-4, October 13—9-3 Free

USF Fall Plant Festival
University of South Florida Botanical Garden,
Tampa
October 12—9-4, October 12—9-3 Admission

Kanapaha Botanical Gardens
4700 SW 58th Drive, Gainesville
Fall Plant Sale & Orchid Show
October 19-20, 9-5 Free

Heathcote Botanical Gardens
210 Savannah Road, Fort Pierce
Garden Festival
November 23—9-4, November 24—10-4
Admission

It's a good idea to check with the organization for possible changes before driving any distance.

about success with this. **The same treatment can be given to combat mealybugs on just about any plant.** We are most appreciative of Brad Schutzman, editor of *The Cycad News*, for his permission to re-print the two articles.

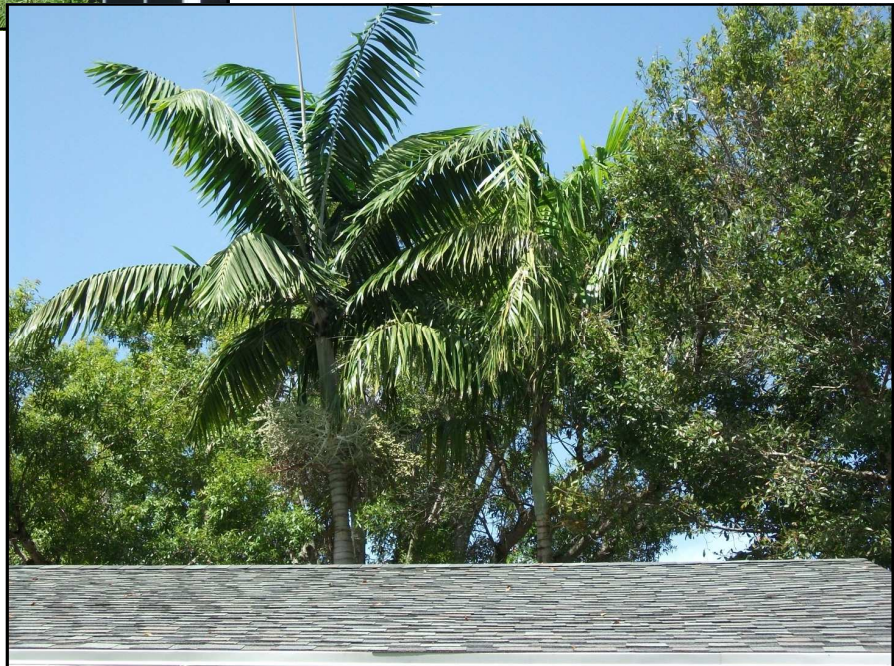
—John Kennedy



Veitchia joannis?

Glimpsed by chance in an older area of Vero Beach, this palm—about 50 feet high—seems to be *Veitchia joannis*. A Famous Palmperson has agreed to the ID. The owner says it's doubled in size in the five years he's lived in the house, was there when he moved in. There's a second, smaller palm of the same species to the right. Both should have died long since in Indian River County, certainly in the two cold winters, 2009-10 and 2010-11.

They are no more than 8 feet from the back wall of the house.



The Last Southern Palm

By John Prince

Yes, it really is the last “Southern palm”, but not in your sense if you are reading this in central Florida. If you go far enough southwards across the oceans of the Southern Hemisphere, the last palm species that you can experience in its natural habitat is the only palm native to New Zealand. It is the medium sized palm the Nikau (pronounced something like “Nee-cow”, and rather more accurately than that by many Maori), or *Rhopalostylis sapida*.

New Zealand, you probably think, if you can locate it on a world map at all, is near Australia. True, but “near” can be a misleading



concept. The closest we are to Australia is about 1,200 miles (or 2,000 kilometers in the metric system that we use now). There are only strictly limited similarities between our plants and those of the giant “neighbor”. We share more, in plant terms, with other islands in the South Pacific.

Nikau are mostly associated with the main islands- the unimaginatively named North and South Islands. But they also occur on islands off the eastern coasts of NZ, and fur-

ther out can be found in a giant arc extending from the Chatham Islands hundreds of miles out in the Pacific and about 44 degrees South up to the mildly subtropical Kermadecs, and across to Norfolk Island. Till recently the established view was that there were two Nikau species, *R. sapida* and *R. baueri* on Norfolk, with a subspecies of the latter in the Kermadecs. That’s not so clear now, but more detailed analysis of the genetics of these palms would be a very good thing.

They grow from sea level up to about 2,000 feet all around the North Island, but are not found at higher altitudes in the island’s center. In the South Island the distribution is

(Continued on page 30)

Map by Loren Robb & John Prince.
Below, the T Bay (Tauranga) remnant form of Nikau growing near Kerikeri.



The Last Southern Palm

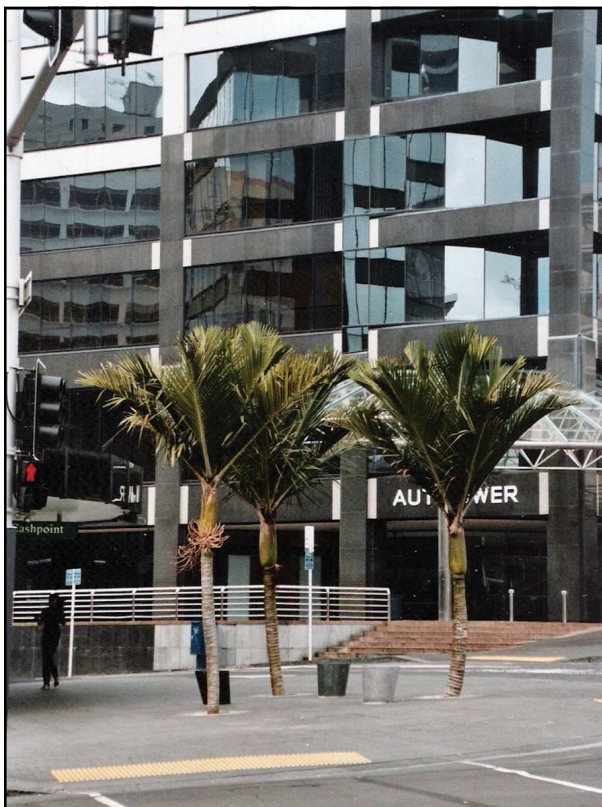
(Continued from page 29)

more limited, around moist coasts down to Akaroa in the east, and about as far south on the western coasts. The most southerly Nikau of all are in the Chatham group. Beyond that, it's "next stop- Antarctica".

I live near Kerikeri in our Far North, at about 35 degrees off the equator. That might indicate a pretty cool climate in Florida terms, but the most important thing to get clear in your minds is that we have a mild oceanic or maritime climate. You have a continental climate, and that makes an enormous difference. It is moist all year here, with more rain in winter, and sometimes dry spells of up to about 5 or 6 weeks in summer. By then grasses are drying out, but the rains always come back eventually, and the normal in-



Above, the Pitt Island form growing near Kerikeri. Below left, Nikau along a street in downtown Auckland.



tense green colours return. At 35 degrees South we can succeed with perhaps about 300 palm species, because it's mild and temperate. For example, arguably all the 40+ New Caledonians would grow here, if we could get the seeds. Probably most of the *Chamaedorea* species will too. They may grow slowly, but they will grow. Anything that needs constant warmth, with no cool winters, won't succeed here.

Think of it as being more like a temperate, not tropical, Hawaii on the latter's moist coasts. Places such as Southern California look dry, arid, and unappealing to my eyes, although our palms will grow there. I'm told by John Kennedy and Mike Dahme that *Rhopalostylis* won't grow in Florida. You're too hot, and alternatively too cold if a real freeze arrives on your doorsteps. We don't have



*Nikau at the home of the author's son in a 'green' suburb of Auckland.
(Photos by John Prince)*

those extremes.

The northern mainland Nikau are rather thin and upright- the reason why they've sometimes been called the Shaving Brush Palm. The tall, thin palms out in a farm field near where I live are a remnant of what would have once been protected in dense native forest before European settlers came and knocked most of it down. The offshore Nikau are often pleasingly more robust, and one of the very best forms comes from Pitt Island in the Chathams. This one is growing at a friend's place near here.

Till relatively recently Nikau were very seldom seen either in suburban gardens or in commercial landscaping. Now the realization is growing that they are an excellent choice for us--as they should be, of course! Pushed

by some more aware landscapers, often members of the NZ Palm & Cycad Society, they are now beginning to be found even in big city downtown plantings. Nature also provides some excellent ideas to people who appreciate these things, and the final photo is just an unplanned domestic setting. My older son lives in a very green suburb of Auckland to which people are drawn by the continuing existence of what has mostly been knocked down for bland suburbia or farms elsewhere.

If you have tried Nikau palms where you live, then I'd like to read about your experiences, however sad or frustrating, so please do email me at-
johnprince_kerikeri@yahoo.co.nz

John Prince has been editor of NZ Palm & Cycad, the magazine of the Palm & Cycad Society of New Zealand.

Coffee, Still Cycads' Best Friend?

[This article was published in The Cycad Newsletter, December 2012-March 2013 issue, and is reprinted here with the permission of the author and of the Editor]

By Tom Broome

Five years ago, I wrote an article called "Coffee, Cycads' New Best Friend?" in the December 2007 *Cycad Newsletter*. Its main focus was to use coffee to get rid of Asian or Cycad Aulacaspis scale (*Aulacaspis yasumatsui*, also known as CAS) on cycads. Even though I had experimented with coffee for 18 months before I wrote the article, I still felt a bit rushed getting this information out to the world. For the last seven years, I have used coffee as the main insecticide in my

nursery, and have continued to experiment with coffee to kill other insects and on other plant types. This article is dual-purpose: some who never read my first article will need to catch up, while others will pick up where I left off last time.

Certain plants produce alkaloids as a survival mechanism to keep insects from eating them or their seeds. Among these is the coffee plant (*Coffea arabica*). The coffee plant produces many alkaloids, the main one being caffeine. These alkaloids can be used to kill certain insects, and to repel others. Depending on the source, used coffee grounds can be used for this purpose. Fresh grounds could be used, but that could be very expensive. Also, fresh grounds and freshly brewed coffee can be fairly acidic, whereas used coffee grounds have much of the acid cooked out of it.

When I was searching for a cheap source of used coffee grounds, I found that Starbucks has a program called "Grounds For Your Garden." They bag up their used coffee grounds and give them away for free. People mainly

(Continued on page 33)



Left, above, coffee grounds as packaged by Starbucks and given free to anyone who asks for them, labeled "Grounds for Your Gardens." Left below, 4" corrugated pipe covered by the cloth sleeve that will be used in the 55-gallon drum to contain and filter the used coffee grounds.



Completed 55-gallon drum for making "sun coffee" to treat scale, mealybugs and aphids as a direct contact spray or drench.

(Continued from page 32)

use the grounds in their compost bins, and to help enrich the soil. Starbucks' used coffee grounds are better than what most people would make themselves at home for a couple of reasons. First, they use espresso beans for some of their coffee, which have a higher alkaloid content than the average coffee bean you would grind and brew at home. Second, they use a drip system, which does not cook out as many of the alkaloids as a percolator might.

I tested several bags of Starbucks' used coffee grounds, and they consistently had a pH of 6.2, just a bit more acidic than my regular soil mix, which has a pH of 6.5. As I mentioned before, their coffee grounds have other attributes that can help with plant cultivation. This material is organic; it has both good water-holding capacity and contains



Old Cycas revoluta planted located in the landscape of a Lakeland restaurant that has been heavily infested with CAS for more than a year and a half, before being treated.

quite a few nutrients. According to the Starbucks Web site, their grounds contain 1.45% organic Nitrogen, 1204 micrograms per gram ($\mu\text{g/g}$) of potassium, 448 $\mu\text{g/g}$ of magnesium, and 389 $\mu\text{g/g}$ of calcium.

Used coffee grounds can be used in a couple of forms to help kill certain insects. The used grounds can be placed on top of the soil as a mulch; every time it rains or you irrigate your plants, the alkaloids leach down into the soil, killing the insects. A quarter to a half inch thick layer works very well.

One problem to look out for when using the coffee mulch in a wet area, such as a greenhouse, is mold that can grow on the surface of the mulch. For whatever reason, this mold makes the used grounds ineffective as an insect treatment. The grounds can also be incorporated into the soil as an amendment. I found that about 10% used coffee grounds mixed into the soil works very well for killing insects, and at the same time, the soil does

(Continued on page 34)

Coffee. . . Cycads' Best Friend?

(Continued from page 33)

not stay too wet with this amount.

The grounds can also be used to make a direct contact spray. For my nursery use, I made a device to "brew" my own spray; it is a large version of the device some may remember using to make "sun tea." I began with a used plastic 55-gallon drum (typically used to store orange juice), cutting a hole in the top. I took a piece of 4" corrugated pipe with holes in it that is used here in Florida for septic tank drain fields. I covered it with the fabric that is sold beside the pipes at the store that keeps dirt from filling them up after they are buried, tied a knot in the bottom to keep the grounds from falling out, and put a pin in the top of the pipe to keep it from falling into the barrel. I made the pipe the

right size to exactly fit one bag of the used coffee grounds from Starbucks. I also installed a hose bib ten inches from the bottom of the barrel. I then fill the tube with used coffee grounds and the barrel with water. Once the mixture has been in the barrel for ten days, it is strong enough to be used as a direct contact spray.

On average, the bags from Starbucks contain around 6-7 pounds of grounds and will make 55 gallons of spray. I later discovered that half the amount of grounds in the barrel would work for easier-to-kill insects such as mealybugs, whereas the entire bag is needed for harder-to-kill insects such as scale. Over the years, I have found that using coffee in one form or another can kill all kinds of scale, aphids, mealybugs, whiteflies, and even spider mites. This doesn't work on just cycads,

(Continued on page 35)



Left, used coffee grounds are placed over the entire root area and are covering the existing offsets that were infested with CAS. Below, used coffee grounds are mixed with water to make a mud and placed around every apex on this huge Cycas plant.





Left, the same plant after total treatment. The most infested leaves were removed from the main trunk, and leaves on offsets were removed. The plant had been fertilized with Cycad Special, manganese sulfate, and iron sulfate. The apex and the root area had been covered with "coffee mud" and the entire plant had been spray with the "coffee tea" steeped in my barrel.

Right, the same plant three months later. Old leaves have been removed, and new leaves free of CAS have been produced. I fertilized this plant again at this time. Three months later, the apices produced a second set of leaves, and all the offsets flushed out again, making this plant look better than it had for at least four years. (Photos supplied by Tom, at right with recovered cycad.)



(Continued from page 34)

but on all plants. I have yet to see evidence of toxicity to any plant group.

You may not need to use this much spray, and may never need to use 55 gallons in a short period of time, so you can improvise and make a scaled down version of this same device. You can put about $\frac{3}{4}$ lb of used coffee grounds in a pantyhose or cheesecloth, and lower that into a five gallon bucket. It should also steep for around ten days in the sun. It also helps to dip this in the bucket a few

times each day to help circulate the coffee, much like you would do with a tea bag when making a cup of tea. If you don't need to make a lot of spray, you can take your used coffee grounds and re-brew them in your coffee maker. The "coffee tea" needs to look fairly dark in order for it to work, so depending on how much of the grounds you are using, you may need to re-brew them more

(Continued on page 36)

Coffee. . .Cycads' Best Friend?

(Continued from page 35)

than once. A lot of this will come with practice, especially if you are using your own grounds to make your spray.

One brand of coffee may be stronger than another, so the amounts I mention should be used merely as a "rule of thumb." You can find out through experimentation what quantities will be best for you to use for each type of insect. Starbucks uses a lot of espresso beans, which have a higher alkaloid content than regular coffee, so you will find that you may need more than what I am using. It is important to note that I have found through experimentation that, for whatever reason, the used coffee grounds seem to become ineffective once they have been on the ground or in the barrel in liquid form for 4½-5 months.

Now, having explained how used coffee grounds can be prepared to kill insects, I will elaborate on what should be done for each application. One of the worst pests killing our cycads is CAS. Since it was brought into Florida some 20 years ago, it has killed more than a billion dollars worth of king and queen sagos (*Cycas revoluta* and *C. rumphii*, respectively) in Florida alone. This scale has spread all over the southern United States, has gone into Hawaii, and even has been transported to Guam on King Sagos, and moved onto the native *Cycas micronesica* plants. It has killed probably 90% of all existing *Cycas* on that island.

The Asian scale has been devastating to many species in the genus *Cycas* and has been thought to be hard to kill because it breeds so fast, and people did not understand its life cycle. It took several years before people realized that the immature scales, or crawlers, go down into the root

system of the plant during the winter. People had been told to use a product like horticultural oil to spray the aboveground parts of the plants, and were also told that this would take care of their problem. Once the weather would get hot again, the crawlers would come right back up into the plants and re-infest them within a few months. People didn't realize this and thought that these insects were impossible to kill, since they didn't know how their plants were becoming re-infested.

The key to keeping CAS in check is to kill all the scales on the plant and also those underground. My suggestion for full treatment of an infested plant is to mulch around the base with the used coffee grounds, covering the entire root zone. In a container, this translates into mulching the soil area of that container. Every time you irrigate or it rains, some alkaloids penetrate the soil. I have suggested to some people that they build a dike with soil around the root area of the cycad, similar to what one would do when planting a new tree in the landscape, and water the grounds in really well so that the fresh mixture will seep down into the lowest part of the root system. If the alkaloids don't make it down throughout the entire root system, there may be some scales that never get treated, and reinfestation can occur.

This mulched area also works as a barrier that keeps crawlers from crawling back up onto your cycads. Oftentimes, the scale can become airborne and land close to the cycad, but then have to crawl up onto the plant. The crawlers can't get past this barrier to get to the plant; if they try, they die. As a second precaution, I also mix some grounds with water until it turns into a coffee mud and apply it around the crown of the cycad.

(Continued on page 37)

Coffee. . .Cycads' Best Friend?

(Continued from page 36)

If a scale makes it past the bottom layer of grounds, onto the stem of the cycad, it can't get past this second layer to get to the leaves.

To kill the scale already on the cycad, I spray the entire plant with the "sun coffee" mixture. If you don't have time to make this mixture, another suggestion is to spray the entire plant with horticultural oil instead. After you have killed every insect on the plant, keeping your plant free of scale will be a lot easier. The last five figures illustrate the treatment of an infested sago at a local restaurant here in Lakeland, and the same plant three months later.

I have suggested to people that they use fresh coffee mulch in the spring, (February or March in my area) and then repeat the mulch application again in July or August, when scale would be totally infesting the plants. Every few months, you should still look around the apex and under the leaves to see if a few scale insects remain untreated, and a simple spraying of the coffee "tea" should take care of your problem.

As an addition to the treatment with coffee, it is important to remember that a scale infestation saps a plant's energy. The longer the infestation, the weaker the plant will be; at the conclusion of this process, the entire stem will often just fall apart. When you are treating your cycads for the very first time, I would also use a good granular fertilizer that will give your plant the extra energy it needs to come back to normal as quickly as possible.

I am using my Cycad Special fertilizer formula, which is a granular 24-7-8 with minor elements. If the plant also looked like it might have had a manganese deficiency be-

fore the attack, you may want to add on top of that, a mixture of manganese sulfate and iron sulfate.

Coffee can be used to kill other insects that attack our cycads. Other types of round scales, tea scales, and mealybugs can be a problem. All of these can be remedied by using the coffee "tea" as a direct contact spray. The mulch can be used to kill other insects in the soil, but this may not be necessary. Mealybugs can sometimes infest the root zone, but they don't appear to cause as much of a problem as CAS.

Another aspect of treatment that I have not mentioned is that plants may take up the insect-killing alkaloids systematically through the roots. Many people misunderstood this part of my first article. As a mulch or incorporated in the soil, used coffee grounds will kill insects systemically for 4½-5 months. This procedure works very well for cycads such as the Caribbean zamias and ceratozamas with subterranean stems. I have used the mulch to rid my counties of the black and white round scales we have here in Florida. For some reason, larger sagos don't seem to take in enough material systemically to kill scale on the leaves. I think more experimenting is necessary to determine which cycads can be treated in this way. I mainly use the spray method on most of my nursery plants. **I have** not needed to use any insecticides besides the coffee brew for the last seven years on my approximately 40,000 plants. I am, however, required to treat plants going to certain states with specific chemicals as required by the Department of Agriculture, but I only use those when required. After using the coffee for so many years, I really don't get large infestations of any insect on my cycads, so treatment is rarely needed.

(Continued on page 38)

Coffee. . . Cycads' Best Friend?

(Continued from page 37)

I have experimented with coffee on many types of plants other than cycads. Even though it might not be germane to a cycad journal, I think this information will give you some added clues on how the coffee works on your cycads. I have found that the softer the plant is, the better the chances that the plant will take up the coffee alkaloids systemically.

I am growing super hot pepper plants as a sideline and hobby. I treated some old plants that were infested with aphids with the coffee mulch. After 3½ weeks, the aphids started to dry up and die. These plants were already five feet tall and five feet wide. I now pot up the new plants with an added 10% used coffee grounds to the soil, and mulch the older plants every five months during the growing season. Sometimes I don't remember my timing for treatment and I see a few aphids here and there, but I always have the spray to use when needed.

This type of systemic treatment seems to work very well on other soft plants like hibiscus and many of our common houseplants. I would assume that the softer the cycad plants are being grown, the greater the chance that a larger plant could be treated systemically.

There are many insects that coffee doesn't seem to kill. Most of the larger insects don't seem to be affected. This is good when you want bees and beneficial insects to work with your plants without being harmed. I have found that some insects are not killed by the coffee, but are repelled by it. I have killed entire ant colonies by covering the entire colony, plus an added six inches on all sides, with the coffee mud I used in the crown of the sagos. The ants didn't want to

come in contact with the coffee so they refused to tunnel through the mud. Without bringing in new material to eat, the colony died. Even though this too may not always be related to cycads, many of us here in Florida have problems with ant colonies nesting in our larger landscape-sized cycads.

For the new people who never read my first coffee article, I hope this helps you to treat your cycads, as well as other plants. For those of you who have already read the earlier article, I hope this clears up any misunderstandings you might have gathered from reading it. I think the application of used coffee grounds for insect treatment has a lot of potential for cycads and many other types of plants. I think it could also be used for many types of food crops.

People are always trying to be more organic in their growing techniques, and we certainly would like to generally reduce the amount of pesticides being used, which can only help our environment. As an example, if the coffee consumed by Starbucks customers alone was used to make the full strength "coffee tea" as a direct contact spray, instead of another pesticide, people would be saving the environment more than 13 million gallons of chemical insecticides each and every day. That amount is doubled, if the spray was being used for easier-to-kill insects such as aphids and mealybugs.

Coffee can be used to save our plants from insect infestations. It can be used to organically fertilize our plants. Best of all, using the coffee would be better for our environment when compared to using commercial pesticides. Not only can coffee be our cycad's new best friend, it can be everyone's new best friend.



Mike Horwitz, former Floridian, long-time resident in Blighty, sent this picture from his house in Reedham, Norfolk, just to prove that there is summer in England. That's Trachycarpus fortunei, which does well there but not here from Orlando south. Note: sunroom/bay but no screened porch. At bottom is Chamaerops humilis and, if Mike is to be believed and we squint real hard, we'll spot Chamaedorea radialis. Hey, doors are open! Temperature may even have risen to 70!

Contributions for the December issue of *The Palmateer* must be received by November 15th.

Deforestation & the African Oil Palm

Large areas of tropical rainforest are being cleared around the world, but particularly in Indonesia and Malaysia, to establish massive palm oil plantations. This new form of slash & burn agriculture has nothing to do with subsistence farming. What perishes at the outset are small farmers, other species of palms, and wildlife.

Deforestation is the chief reason that Indonesia's greenhouse gas emissions are the third highest in the world.

Elaeis guineensis can be grown without much difficulty in most wet tropical areas. The oil is extracted from the seed and is used in an amazing array of products. The attraction to manufacturers is that it is very cheap. Palm oil, a saturated unhealthy fat, is an ingredient in snack foods, candy, cereals, cos-

metics, toothpastes, shaving creams, and shampoos—just to name a few categories. The label often doesn't say "palm oil" but "vegetable oil." About 380 million gallons of palm oil was imported into the U. S. last year, according to an NPR report.

Many domestic cleaning products contain a palm oil derivative called sodium lauryl sulfate, though there are other names for this. For more details, see <http://saynotopalmoil.com> and also Wikipedia.

Even more deforestation is likely to follow when use of palm oil for biofuels considerably increases demand.

—John Kennedy

PRESIDENT'S MESSAGE

TERRIFIC PALM GROWING YEAR

This summer may not have been the greatest for vacationers and party-goers hoping for sunny days and moonlit nights, but it sure made palm-growing fun. Don't have stats for the rest of Central Florida, but over 35 inches of rain smothered Manatee and Sarasota Counties during June and July. And it's STILL raining! Not only did the record breaking deluge end a two year drought, but it made watching palms shoot their fronds to the sky an action-packed way to spend a day.

WHITEFLY

The nasty spiraling whitefly cropped up in my neighborhood, chopping irreverently on *Adonidia merrillii*, coconuts and Traveler's palm and we understand they are now attacking some 92 different species. True: the bugs generally don't kill their hosts, but they leave an unsightly sticky mess on the leaves and anything below – such as driveways and cars. My place is clean (knock on wood), but anxious efforts were expended in nearby yards pressure-washing, spraying soap and Neem oil in an effort to stem the onslaught.

One neighbor – who loves palms but was actually threatening to take a chainsaw to all of them -- followed the water/soap treatment with a systemic poison that made this season's coconuts inedible. Another chose the biological route and released 10,000 Lacewings in his yard. He intends to follow up with another release of larvae.

It will be interesting to see which control measure works better.

SEPTEMBER MEETING

We can all compare notes on weather, plants, whitefly and whatever else at CFPACS's next great gathering on Sept. 14th,

just a few short weeks away. Full details are elsewhere in *The Palmateer*. Faith Bishock will host us in the morning at her world-renowned nursery in the boonies northeast of Sarasota. Her greenhouses are perched in the heart of a unique subdivision designed specifically for private aircraft owners. You may have to dodge a low flying airplane when you drive in ... roads double as runways.

After drooling over Faith's extensive collection of rare and unusual palms, we'll travel about 10 minutes away to the Presley ranch and nursery. Catherine and her husband successfully grow variegated *Raphis* and raise small cattle on their property. Lunch will be Catherine's famous Caribbean pork barbecue. . . Vegetarian fare also on the menu. Those of you seeking easy care native plants to enhance your palms may want to follow up with a visit to the Florida Native Plants Nursery down the road from the Presleys.

NEXT YEAR'S MEETING PLACES

It's time to start mapping out the meeting calendar for 2014. This year has been characterized by visits to the southern half of CFPACS's territory, yet we know there are many exciting gardens north of Highway 60. Where are they? And will their owners welcome a group of seriously dedicated palm growers. Do you know of gardens – public or private -- you've always wanted to see? Would you welcome a visit to your own place? Please forward your suggestions to me: palm.president7@gmail.com – do it now while you think of it. Give those of us in the south a chance to see what the folks north of Tampa grow successfully.

umbrella gather their members together in one giant meeting that sprawls over a couple of days and is packed with garden/nursery tours, scrumptious food, bargain prices on

PRESIDENT'S MESSAGE

SEED BANK COORDINATOR NEEDED

One of CFPACS's most important jobs is offering seeds collected from member trees for sale to other palm and cycad hobbyists who would like to germinate their own plants. Proceeds go toward a variety of worthy causes such as research grants and community beautification. John Green deftly handled the job for many years. Dottie Kellogg has been coordinating for the past year but now needs someone to replace her.

Manning the Seed Bank is quite simple – and gratifying --because of its noble purpose. As a former coordinator, I personally enjoyed the process of corresponding – via email— with people from all over the world, packing and shipping their orders. Seed payments go directly to our Treasurer Maryann Krisovitch so no need for the Coordinator to fiddle with funds.

Please email me if you would like to take over this vital job:

palm.president7@gmail.com

See you on September 14th at Faith's place.

—Lucinda McCartney

*Do you recognize the palm in the picture at right? Not usually seen like this, it's *Allagoptera arenaria* street-side at U. A. Young's old house in Tampa. The trunks are about 6 feet high in this supposedly trunkless species.*

(Photo taken on March 23, 2006, by John Kennedy)



Nannarhops ritchiana in bloom at Gizella Kopsick Palm Arboretum in St. Pete. Background: Old Tampa Bay. (Photo by Rick Nale)



TREASURER'S REPORT

Checking Balance 7/1/13	\$11,895.84
July Deposits	\$206.25
July Checks	\$184.57
Ending Checking Balance (7/31/13)	<u>\$11,917.52</u>
Gain/(Loss)	<u>(\$21.68)</u>
Income Year to Date	
Membership	\$1,565.54
Merchandise	132.00
Private Sales	1,342.61
Public Sales	2,702.89
Seed Bank	<u>667.61</u>
Total Income Year to Date	<u>\$6,410.65</u>
Expenses Year to Date	
Meeting Expense	\$508.38
Office Supplies	89.72
Public Relations	375.75
Seed Bank	112.15
Taxes	307.51
Vendor Fees	201.56
Vendor Proceeds	2,592.74
Website	<u>495.00</u>
Total Expenses Year to Date	<u>\$4,682.81</u>
Assets	
Endowment Fund Balance	\$10,275.71
Certificates of Deposit*	\$6,397.77
Sales Cash Box	<u>\$300.11</u>
Total Assets	<u>\$16,973.59</u>
Net Worth as of 7/31/13	\$28,891.11

From Seed Bank Coordinator

"Thank you to all the members donating seeds to the Seedbank. You have made it possible to supply seeds to people all over the world. I have sent seeds to the following: Ukraine, Indonesia, Russia, Netherlands, Arizona, North Carolina, and numerous destinations in Florida. "

Central Florida Palm & Cycad Society Board Minutes 8 June 2013

The meeting at the home of Walt & Cathy Darnall, Lake Placid, Florida, was called to order at 10:20 a.m. by Lucinda McCartney, president. Present: Ron Hart, Central vp; Mike Evans, West vp; Maryann Krisovitch, treasurer; John Kennedy, editor. Also present, Guy Pessina, guest.

First topic of discussion was the Young property in Tampa. This is still for sale and the fate of the palms and cycads there is yet to be settled.

Second topic was Eric Schmidt's palm cultural information brochure which he has agreed to permit the chapter to sell. As a fundraiser this presents difficulties since the cost of printing and mailing, plus the markup for a small profit, would require a price beyond what potential purchasers might be willing to pay. It was agreed that the Schmidt brochure should be posted on the website as a members-only benefit. Non-members could order this by payment. A teaser would be placed on the general information portion of the website to drive traffic. Other benefits for members only would encourage non-members to join.

A password for access to *The Palmateer* and to other areas of the members-only sections

(Continued on page 43)

Board minutes 8 June 2013*(Continued from page 42)*

of the website will be sent to the individual member on joining or renewal. At present this is expected to be a single password for a particular year, going into effect before the next (September) issue of the newsletter.

[This has been postponed for the immediate future. —Editor]

The website should be updated regularly since recency of activity serves to keep the website as on the top of Google and other search engine placement response. In addition, a counter should be installed on the website to monitor activity.

The possibility of advertising on the website and in the quarterly newsletter was examined and found to be an unlikely source of income with chapter membership too small at present to make this attractive to potential advertisers.

Issues of *The Palmateer* will in future contain information about motels and restaurants in the vicinity of the quarterly meeting, as obtained from local members.

In 2014, annual membership will go up to \$20 a year or \$50 for three years. Foreign membership, \$25. The current domestic membership of \$15 has been unchanged for at least 15 years.

The meeting was adjourned at 11:00 a.m.

Respectfully submitted,

John Kennedy, editor,

in place of **Chuck Grieneisen, secretary**
(absent)

Seed Bank Coordinator Needed!

Dorothy Kellogg is retiring. For information, contact **Lucinda McCartney**, President (palmresident7@gmail.com)

Leu Palm Donation to Kopsick

[List supplied by Rick Nale. Small palms will be held in reserve until larger before planting in the St. Petersburg arboretum.]

Allagoptera leucocalyx

Arenga wightii

Attalea allenii

Attalea colenda

Brahea clara 'Icy Blue'

Brahea pimo

Caryota maxima

Chelyocarpus chuco

Calamus erinaceus

Daemonorops angustifolia

Dypsis robusta

Dypsis sp. "Dark Mealybug"

Latania veschaffeltii

Livistona rigida

Phoenix loureiroi var. *loureiroi* (*hanceana*)

(this form is native from southern China to Taiwan to the Philippines)

Phoenix loureiroi var. *pedunculata* (formerly var. *humilis*)- (form collected from foothills of the Hindu Kush in the Khyber Pakhtunkhwa province, formerly known as the North-West Frontier Province, in northeastern Pakistan)

Phoenix loureiroi var. *pedunculata* (formerly var. *humilis*)- (this form is native to the Kashmir region in northern Pakistan)

Phoenix loureiroi var. *pedunculata* (formerly var. *humilis*)- (this form is from the Himalayan region of NE India)

Roystonea lenis

Roystonea maisiana

Sabal miamiensis

Syagrus vagans

Tahina spectabilis

PayPal Tutorial

Here is how to make a payment to CFPACS using PayPal

- 1) Log on to <http://www.paypal.com>
- 2) If you have a PayPal account, log into your account. If you do not have a PayPal account, click on the 'Personal' tab. Once on the 'Personal' page go to 'Send Money' and then 'Send Money Online.'
- 3) Once on the 'Send Money' page, type 'payments@cfpacs.org' in the 'To' field. Type in your email address in the 'From' field and the amount you wish to pay in the 'Amount' field.
- 4) From there you will be taken to a secure page where you can enter your name, address and credit card information.
- 5) When you are ready to finish up the payment process, please indicate whether your payment is for membership or seeds or t-shirts in the message field.

The Cycad Society

11701 Barchetta Drive
Austin, TX 78758
Regular membership, \$35, quarterly
newsletter
<http://cycad.org>

The International Palm Society (IPS)

9300 Sandstone Street
Austin, TX 78737-1135
Regular membership, \$45, quarterly journal
<http://palms.org>

Join CFPACS

Please print

Name _____
Street _____
City _____
State, _____
County _____
Zip _____
Email _____
Phone (area) _____

Wish to be added to Seed Bank E-mail list?
(Circle one) YES NO

Willing to be listed publicly in roster?
(Circle one) YES NO

Mail check made out to CFPACS
(domestic: \$15 one year; \$40 three years;
foreign: US\$20 one year) to:

Maryann Krisovitch
CFPACS Treasurer
1008 Little Fawn Court
Apopka, FL 32712
treasurer@cfpacs.org

Membership also available at website:
www.cfpacs.org

The dues of anyone joining after October 1
are applied to the following calendar year
and include the December issue.

Remember! Dues will be \$20 a year,
\$50 three years (domestic) as of Janu-
ary 1, 2014. Foreign to US \$25 annu-
ally. See Board report on page 42.



Above, Jamaica Tall coconut palms at Kopsick in St. Pete. Also there, below, Beccariophoenix madagascariensis, the non-window coastal form. (Photos by Rick Nale)



CFPACS Board

PRESIDENT

Lucinda McCartney
4217 Marlin Ln.
Palmetto, FL 34221
president@cfpacs.org

EAST VICE-PRESIDENT

Janice Broda
12396 Hwy. A1A
Vero Beach, FL 32963
eastvp@cfpacs.org

CENTRAL VICE-PRESIDENT

Ron Hart
1008 Little Fawn Ct.
Apopka, FL 32712
centralvp@cfpacs.org

WEST VICE-PRESIDENT

Mike Evans
6015 - 100th Way N.
St. Petersburg FL 33708
westvp@cfpacs.org

IMMEDIATE PAST-PRESIDENT

David Reid
100 Hilliard Ln.
Merritt Island, FL 32952
pastpresident@cfpacs.org

SECRETARY

Chuck Grieneisen
PO Box 621689
Oviedo FL 32762
secretary@cfpacs.org

TREASURER

Maryann Krisovitch
1008 Little Fawn Ct.
Apopka, FL 32712
treasurer@cfpacs.org

MEMBERSHIP CHAIR

Karen Barrese
5942 Ehren Cutoff
Land O Lakes, FL 34639
cfpacsmembership@msn.com

PALMATEER EDITOR

John Kennedy
3225 - 13th St.
Vero Beach FL 32960
palmateer@cfpacs.org

CFPACS SEED BANK

Dorothy Kellogg
1807 Jiretz Rd.
Odessa, FL 33556
seedbank@cfpacs.org

MEETING COORDINATORS

Susan Dow & Rob Branch
1314 38th St.
Sarasota, FL 34234
meetings@cfpacs.org