Scenes at Rob Branch's: top, a really uncommon palm, Pritchardia remota *. Above, no machete required: his palm jungle, on view during the Dec. 13th Sarasota social meeting. Upper right, the waterfall. Lower right, a walkway there.*

(Photos by Rob Branch)

The Palmateer

Volume 39, Number 4 *Central Florida Palm & Cycad Society* *December 2008*

Phil Stager (bottom left, glasses) takes the group to admire the BIG Beccariophoenix madagascariensis *at his place during the September meeting in St. Pete.*

(Photo by John Green)

Dec. 13 Sarasota Meeting

A serene scene at Rob Branch's, site of the December holiday meeting. Nice idea: sitting in one of those chairs sipping something cool or—maybe for December—some Glühwein or hot toddy?

(Photo by Rob Branch

September Meeting Report

The 20th was a good day for the September meeting: sunny, no rain, no excessive heat or humidity beyond the norm. And, no hurricanes in the offing, a consideration that all planners of outdoor rainy-season Florida events must fear. About 50 people turned up at Phil Stager's, the first stop in St. Pete. Only a few hardy folks appeared from the east coast but, hey!, gas was more than $4 a gallon. The prize—had there been one—would have gone to member Rick Leitner who drove, with a friend, from Fort Lauderdale.

At Phil's, a tract house on a small lot has been transformed, no other word possible, into a jungle surrounding the house—front, sides, back. Doesn't look as if there's room for one more plant. A suggestion to Phil: take out the swimming pool & screen enclosure and you'll have room for a few more! The size of the *Beccariophoenix madagascariensis* amazed the visitors. Oh, yes, he has crotons and bamboo, too. The houses all around are mostly bare lawns with a Queen Palm or two and a few shrubs. No doubt, turning into the street, which is Phil's house.

Mike and Marjorie Evans have 1.5 acres meaning (of course) that there is room for even more stuff. Seventy

(Continued on page 5)

By John Kennedy

"Have I died and gone to Palm Heaven?" Now, we don't know that anyone has really, ever, actually, truly said this about Rob Branch's Sarasota garden where our Saturday, December 13th 'sociable' meeting will be held. Some visitors undoubtedly thought this but retained enough sense not to utter aloud. It's an acre, beautifully and elegantly landscaped with all kinds of tropical plants, not only palms and cycads. Rob has been collecting for nearly 25 years now so the tailored jungle effect is evident.

Pictures of 'Branch Botanical Garden' are scattered throughout this issue of the newsletter. Do come to enjoy all the lovely plans so artfully arranged. More

(Continued on page 3)

RENEW YOUR MEMBERSHIP FOR 2009! DON'T MISS THE NEXT ISSUE OF *THE PALMATEER*!

The Central Florida Palm & Cycad Society service area includes the following counties:
Alachua, Brevard, Citrus, DeSoto, Flagler, Hardee, Hernando, Highlands, Hillsborough, Indian River, Lake, Levy, Manatee, Marion, Okeechobee, Orange, Osceola, Pasco, Pinellas, Polk, Putnam, Sarasota, Seminole, St. Lucie, Sumter, Suwannee, and Volusia.

Please notify the Membership Chair (see directory on p. 31) of any changes in street address, phone number, area code, or e-mail address. The newsletter is sent to the address of record.

CENTRAL FLORIDA PALM & CYCAD SOCIETY

CONTENTS

The due date for the March issue is:

FEBRUARY 2

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 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

Back copies may be purchased for $5 each, plus postage.

CENTRAL FLORIDA PALM & CYCAD SOCIETY

GIVE A ***GIFT*** MEMBERSHIP TO A FRIEND!
A letter will be sent to the recipient that announces the gift and its giver.
Contact the Membership Chair (see right) for details.
Check or PayPal accepted.

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 International Palm Society (IPS)

Anyone interested in joining the IPS and receiving the quarterly, illustrated journal, *Palms*, should send a check for $45 (regular membership or family membership, same price) to:

International Palm Society
P. O. Box 368
Lawrence, KS 66044

Dues may also be paid online at the IPS website, www.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:

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

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.

Those joining before October 1 receive all four issues of *The Palmateer* for the current year (March, June, September, December).

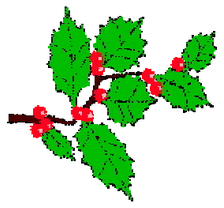
Closing date for March issue

FEBRUARY 2

Directions to Rob Branch's

From North: Take I-75 south to University Parkway. This is the first Sarasota exit.
Head west—take a right—for approximately 5 miles to U. S. 301, a major intersection.
Make a left (south) on 301.
Go 1 mile to Myrtle, where you will turn right. There is a large sign before Myrtle for "Jungle Garden." Cross over railroad tracks.
The second street after the railroad tracks is Coconut Ave. Turn right and go one block. Rob's place is the second garden on the right (1315 38th St., corner of Coconut Ave. and 38th St.) Signs will be posted along the way to help drivers.
From South: Take I-75 north to University Parkway, then follow the directions above.

Address
Rob Branch
1315 38th St.
Sarasota FL 34234
(941) 358-4953



Dec. 13th Sarasota Meeting

Continued from page 1)

than 350 species of palms, 700 individuals are there for the looking and yearning. Flowering trees, aroids, bamboos, bromeliads and succulents are also planted.

As usual, our meetings seldom—if ever—have a speaker. Instead, we go to gawk at somebody's collection of palms/cycads and feel envy or despair. Occasionally, there's a secret chortle: "Mine is bigger than his!"

Food is always part of the December meeting (all organizations devote December to member weight gain?): happy munchers inevitably have a good time. Rob will cook a main dish (turkey); the chapter will provide water and sodas. Everyone is asked to bring a side dish (casserole, salad, dessert). So that Rob will know how many portions he should prepare, RSVP by e-mail to Catherine Johnson, our treasurer (biokat@aol.com), by December 7th.

There is, as usual, a Board meeting before the general meeting. Everyone is welcome to attend.

In the afternoon, after lunch has been served up and eaten, comes the serious business of the auction and plant sale. New vendors are encouraged to attend but must have a vendor number from Catherine. Rules for CFPACS sales and vendors are posted on page 23 of this issue.

Meeting Schedule

10:00 a.m. Board meeting
10:30 a.m. Garden tour
Noon Lunch
After lunch Auction & plant sale

Renew your membership for 2009!

Look at the label on the envelope. If it says, above your name, "Paid 2008" then this could be your last issue of *The Palmateer*. The membership year ends on December 31st.

Membership is still only $15 a year or $40 for three years. Send check to Karen Barrese, Membership Chair, 5942 Ehren Cutoff, Land O Lakes, FL 34639 , or online by PayPal.

OPEN CFPACS POSITIONS

Are you are the type of person that likes to get involved and make a positive difference in the world? If so, please consider lending your time and talents to CFPACS. We could use help in the following areas:

East Coast Vice President - this person will work closely with the CFPACS president and board to promote the society, plan events and serve the needs of our members in Brevard, Flagler, Indian River, St. Lucie and Volusia counties. This position is part of the CFPACS board. Internet access and regular use of e-mail is required.

Auction Chairperson - this person will coordinate CFPACS auctions. Duties include soliciting plant donations, coordinating delivery of donated plants to CFPACS meetings and scheduling auctioneers and record keepers for auctions.

Leu Gardens Sale Chairperson - this person will coordinate CFPACS participation in the Leu Gardens Sale, held each year in Orlando at the end of March. Duties include soliciting plant donations, coordinating delivery of donated plants to Leu Gardens the Friday before the sale and scheduling volunteers to staff the CFPACS booth during the sale.

Other areas - if you have a particular ability or talent that you feel would benefit CFPACS, please let us know. Contact Bob Johnson, tropicalbob@earthlink.net

RENEW your CFPACS Membership for 2009 or this will be your last *Palmateer.*
Send check to Karen Barrese (see p.30)
Or use PayPal

The back of this scanned-in picture is imprinted "March 1993." The occasion was the dedication of the Palm Walk at Heathcote Botanical Gardens in Fort Pierce. At left is Lib Tobey, then Garden director. John Kennedy is eating what appears to be a chocolate donut (free, with coffee). Ed Hall, then secretary of Central Florida Palm (not "& Cycad "yet) Society, had come from Maitland with wife Nancy (treasurer) in honor of the event. Ed was invited to say a few words but declined. John—then a youthful 56 and never at a loss for words—filled in, with waves of the donut punctuating his well-received comments. Not many palms in the Palm Walk at that time.

(Photo by Mike Dahme)

CFPACS SEED BANK REPORT
3rd Quarter 2008

Note to all members: please keep me updated with your email changes, as you will not be able to receive the Seed Bank's Seed Offerings unless I have your current email address. My email address is at the bottom of this report, please notify me if you have an email change.

The CFPACS Seed Bank has been active over the past 3 months, thanks to a large number of seeds being donated that resulted in a number of popular seeds offered. There were 29 seed orders filled from July 2008 through September 2008, which resulted in a sales total of $697, excluding shipping charges. As usual we have many customers from Florida. But also had orders sent to Alabama, Arizona, California, Kansas, Hawaii, Kansas, and Texas. We had several international orders that went to England, Germany, Italy, and the Netherlands.

Significant seed donations were received from CFPACS members, making for several very attractive and successful seed offers. During this period Mike Dahme donated the largest number of species, which included ***Aiphanes minima, Carpentaria acuminata, Chamaedorea cataractarum, Dypsis decaryi, Licuala spinosa, Livistona decora, Raphia farinifera, Pinanga coronata 'kuhlii' form, and Ptychosperma caryotoides.*** Neil Yorio donated ***Hyphaene coriacea and Syagrus botryophora*** which resulted in the largest single species sales return (for the *Syagrus botryophora*).

Christian Faulkner provided seeds for ***Pritchardia remota and Coccothrinax crinita*** which were very popular with our members. Dean Van DerBleek donated ***Chamaedorea radicalis, Dypsis decaryi, and Phoenix sylvestris*** seeds. P.J. Klinger donated the very popular ***Butia x Jubaea*** seeds. Andrew Hendricksen donated ***Archontophoenix cunninghamiana***. Anne Michael donated seeds for ***Attalea speciosa, Copernicia glabrescens, Copernicia macroglossa, Roystonea regia, and Syagrus schizophylla and Thrinax radiata***.

John Green provided ***Coccothrinax miraguama, Ptychosperma schefferi, Licuala spinosa, and Livistona decora*** which were collected at the Florida Institute of Technology botanical garden. John Kennedy provided ***Allagoptera arenaria*** and **(**with Janice Broda**)** ***Coccothrinax argentata***. Rick Leitner donated some ***Veitchia spiralis***. Lyle Niswander donated the always popular ***Carpentaria acuminata*** and ***Veitchia arecina***. And an anonymous donor provided a large number of ***Pritchardia maideniana.***

Other popular donations include ***Livistona australis*** from Richard Lundstadt and ***Archontophoenix alexandrae, Dictyosperma album, and Dypsis leptocheilos*** from Rick Nale.

Special thanks go out to our Seed Bank customers for their continued support of the CFPACS, especially Mike Ricigliano who ordered a list topping $265 of seeds during this period.

Your seed donations are greatly appreciated by the CFPACS, without which we would have no Seed Bank at all.

—John Green, Seed Bank Coordinator
Seedbank@cfpacs.org

Kerriodoxa elegans *will be on view for the Dec. 13th social meeting at Rob Branch's in Sarasota..*

(Photo by Rob Branch)

Season's Greetings

Sept. 20th CFPACS Board Meeting

The third quarter meeting was called to order at the residence of Phil Stager September 20, 2008. Board members in attendance were: Christian Faulkner, John Green, Chuck Grieneisen, Bob and Catherine Johnson and John Kennedy. Members absent were Karen Barrese, Frankie Ramos, Claudia Walworth and Diana Wehrell-Grabowski.

Current CFPACS membership is 277, up two persons from this time last year. This is the first year in several that our membership has not declined. Membership was right under 400 in 2003. We would like to see membership increase to over 300 in 2009. Central VP Claudia Walworth has suggested creation of a new member welcome packet, which we plan to debut in 2009.

Various promotional items such as T-shirts, tote bags and decals were discussed. The board approved getting 100 t-shirts and 100 tote bags.

The printing of *The Palmateer* is in transition. Bob and Catherine Johnson will house the printer and print the newsletter on a temporary basis. While committed to continuing to produce a full color newsletter, we are looking at ways to decrease costs in production of *The Palmateer*.

CFPACS grant guidelines will be revised between now and the end of the year, with grant guidelines to be published in *The Palmateer* and on the CFPACS web site in 2009.

The 2009 meeting schedule was discussed, and the possibility of having more meetings featuring speakers.

The position of east VP is open, following the retirement of Mark Grabowski in June. In addition to an east VP, there are additional areas of our work that will not realize their full potential until we have someone to coordinate that area. Two of these areas are auctions and the Leu Gardens sale. We will continue to hold auctions at selected meetings, but would like to have an Auction Coordinator to help improve our auctions. As far as the Leu Gardens sale, CFPACS participation in this sale is on hold until someone volunteers to be our Leu Gardens Sale Coordinator.

--Chuck Grieneisen, Secretary

"*Here is the photo of the* Attalea rostrata *struck by lightning [at Leu]. This palm was donated by Dave Besst and planted in 1973. It survived the freezes of 12/83, 1/85, and 12/89. There were lots of* Syagrus romanzoffiana *around it back then and they were wiped out in the '89 freeze. There used to be an* Arenga pinnata *growing near it that was planted at the same time and also survived the freezes. It has since flowered and died (in the late '90s)—and been replaced."*

(Comment and Photo by Eric Schmidt)

Taxonomy vs. the Rest of Us

Check out Bart Schutzman's article on confusion of names and species in *Zamia* on p. 20. It contains the best and simplest description of how/why plant names keep changing.

—Editor

Below, Mike Dahme, white shirt and socks, shows the height of some palm to prez Bob Johnson . Sale plants are lined up at the home of Marjorie & Mike Evans, the second stop on Sept. 20th. Hat in back is the Editor. The Bismarckias *in the ground are part of the Evans nursery and are for sale.*

(Photo by Chuck Grieneisen)

September Meeting Report

(Continued from page 1)

Royal Palms? The condition of the garden and the size of the palms and other tropicals is deceptive: the garden has been there only since 1999. Mike and Marjorie cheated, you know, planted big stuff, not just strap seedlings but we won't argue with the effect. Especially striking to several visitors was a row of three nice sized *Cryosophila warscewiczii*, the Rootspine Palm. The auction and plant sale were held here.

Per usual, windows in departing cars and backs of pick-ups showed waving fronds as the drivers left with their haul.

--John Kennedy

Above, palm gawkers, croton gawkers, et al, at Phil Stager's in St. Pete on September 20th. Very peaceful.

(Photo by Bob Johnson)

Are You Wired to CFPACS?

We Need Your eMail Address!

CFPACS sends out an e-mail update featuring current news and events about once a month. Please be sure that we have your current e-mail address so that we can keep you informed on all the latest CFPACS activities and other events of interest throughout central Florida. Please send your e-mail address to Bob Johnson, tropicalbob@earthlink.net to be on our e-mail list.

Right, waiting for the shovels: palms to be planted in a demonstration garden at McCarty Hall on the University of Florida campus in Gainesville: sophomore Kyle Wicomb's visionary project. *See page 24 for the story.*

A Palmy Yard in Augusta, Georgia (Cycads, Too)

Left, Joe LeVert's backyard in Augusta looks much like North Florida or—maybe—even Central Florida.

Right, Jubaea x Butia, *maybe F4 (fertile seeds). Below,* Brahea armata.

"**My normal** winter lows are in the upper teens. The lowest it has been in Augusta since 1985 is 11F. The hybrid, the *Brahea*, and the *Cycas* have been in the ground since the late 80's early 90's, so they have been through some low temps. The Cycads have lost all their foliage before and the *Brahea* has even had a central spear pull out. They all recovered obviously. I have seedlings coming up under the hybrid. There's no telling what kind of palms they will be since pollen from *Butia x Syagrus* (F4), *Butia paraguayensis*, and *Butia capitata* are in the neighborhood. They all provide a lot of pleasure for me."
—Joe LeVert, past president of Southeastern Palm Society, co-author of *Hardy Palms for the Southeast*, and new CFPACS member.

President's Message

CFPACS has had a busy and productive year. We have sponsored or participated in nine events from St. Petersburg to Melbourne, Maitland to Sarasota:

March - Melbourne: FIT Botanical Fest
Orlando/Maitland: Garden Tour, [Leu Gardens and Gordon & Pat Smith's]
April - Tampa: USF Botanical Garden Sale
June - Grant/Valkaria: Garden Tours, Mike Dahme's and Mark Thoe's
July - Orlando: Don Hodel presentation .
on .*Chamaedorea* Palms, Leu Gardens
September - St. Petersburg: Garden Tours, Phil .Stager's and Mike and Marjorie Evans'
October- Tampa: USF Botanical Garden Sale
November - Melbourne: Festival of Palms, FIT …… Botanical Garden
December - Sarasota: Holiday Garden Tour and Social, Rob Branch's

Through these events, we have had the opportunity to see several inspiring gardens, sell both common and rare palms and cycads to our membership and the general public, and hear presentations from internationally and locally renowned experts on palm horticulture. Most of all, we have enjoyed talking to old and new friends who share our enthusiasm for growing palms, cycads, and many other plants.

In addition to these meetings, sales and talks, CFPACS has had the opportunity to partner with other organizations and individuals by awarding grants and assisting in plant placement. CFPACS has given grants to the FIT Botanical Garden, the Gizella Kopsick Palm Arboretum and the Pine View School for the Gifted for the acquisition and planting of palms and cycads. We have also assisted in the relocation of Jack Caudry's cycad collection to the Central Florida Zoo and Botanical Garden.
We continue to produce an informative, full color newsletter, *The Palmateer*. We make a variety of palm and cycad seeds available to our membership through the CFPACS seed bank. We again have t-shirts. We now have directional signs to help point the way to meetings - and let passersby know about CFPACS.

None of these things would have been possible without the hard work of the CFPACS board and many of our members. A heartfelt "thank you" to each of our board members, meeting hosts, plant vendors, plant and seed donors and anyone else who has worked "behind the scenes" to make the year such a success.

Plans are underway for an even better 2009. I invite you to consider an increased commitment to the society over the coming year. Many of you are doing all that you can do, but many can do more. Perhaps you can adjust your schedule to attend more meetings. Maybe you have some plants or seeds to donate. We do need more volunteers - are you the one for the East VP position or the auction chair? Do you have gardening friends that you can invite to come to a meeting, to become a member?

I believe there are limitless ways for us to advance the mission of CFPACS, to promote the growing of thriving palms and cycads throughout Central Florida. What can you contribute? What part do you have to play in the future of the society?

Bob Johnson

FIT's Botanical Fest will be held Saturday,. March 7, 2009 on the Florida Tech campus in Melbourne. The 2008 Botanical Fest had over 4,000 visitors and 44 plant and garden vendors. CFPACS will be a sponsor of the 2009 Botanical Fest—we have participated since 2007 and it has become our main spring sale for the east coast. If you would like to participate as a vendor, please contact Bob Johnson by Feb. 1, 2009.

From the Editor's Desk

No sooner did we relax, as the hurricane season headed toward a wonderfully uneventful ending, than Hurricane Paloma suddenly formed, turned into a Category 4, then as quickly dissipated. Unsettling to us poor Floridians.

Tropical Storm Fay dropped 17 inches of rain at my house and has claimed one palm: *Trithrinax acanthocoma* (now *T. brasiliensis*). It's rotted out, either from so much rain from above into the bud or from a week or so of very moist ground, not even any standing water, but essentially no drainage. Maybe 15 years old, only about a foot of trunk, eight mature leaves, and now dead. A Florida anise (*Illicium floridanum)* and a loblolly bay (*Gordonia lasianthus*), both native plants, have also bitten the dust or mud.

* * * *

Gas prices are down, at least for the moment. This means, hopefully, that more members will be traveling from afar to the 'sociable' meeting at Rob Branch's in Sarasota on December 13th. When gas cost more than $4 a gallon, many of us were calculating very carefully how much it would cost to travel any optional distance beyond going to work and the grocery store. But do come to Sarasota. This last CFPACS event of 2008 features food, fun, and lots of palms and cycads. Remember: gas will once again be $4 a gallon, take advantage of lower prices while we can.

* * * * *

Picked up somewhere online: LY--lethal yellowing--the disease that killed all the coconut palms from Palm Beach County south on the east coast, has appeared on the west coast in Lee County (Fort Myers). Previously, LY was stalled in the bottom southeast third of Florida, not being able to survive chillier winter temperatures farther north. But with global warming, cold temperatures are almost occurrences of the past. We may be able, eventually, before Florida sinks gracefully beneath the waves, to grow coconut palms in Jacksonville, with the drawback that their killer disease may accompany them north.

* * * * *

I am looking forward to visiting Rob Branch's version of The Palm Paradise. When we went there four years ago, that Saturday was in the middle of my exam period and I was reading piles of material frantically. No time for Palm Paradises on the other side of the state, unfortunately. Now, however, as a Certified Golden Oldie (otherwise known as a retiree), I am available for amazement and beauty in Sarasota.

* * * * *

New CFPACS t-shirts will be on sale at the December meeting in Sarasota. Buying one (or two or three) helps our society financially and also helps make us more visible to the general public. Only $12 for regular sizes and $14 for largest sizes. An additional line has been added below the big logo on the back: Plant a Palm! Although membership is stable, we would very much like to increase our numbers a bit. Think of all those un-palmed, un-cycaded people in Florida. Millions who haven't gotten the word. Go forth in your t-shirt and proselytize. Suitable for wear on nearly all occasions though maybe not for church? If you can't get to Sarasota, the shirts are available by mail order (see page 19).

* * * * *

If you need a lighted electric palm tree to advertise your business in tropical Columbus, Ohio this is obtainable from BuyPalmTrees.com right here in Fort Myers, Florida. Two varieties are available: a generic *Phoenix* and a coconut palm—in various sizes and colors. Moreover, the company also offers lighted artificial cactus for your Western-style bar in Aliquippa, PA. Again, different sizes and colors.

An unusual, but pretty offering is a more delicate outline of a flowering cherry tree. Alas, the website wouldn't permit lifting any of the images for illustration.

* * * * *

President-elect Obama's policy position on palms and cycads has not yet been disclosed. We do, however, look forward to his transition team's making contact with President Bob Johnson for a meeting of minds. Maybe our new president-to-be needs a CFPACS t-shirt?

John Kennedy

Below, Cycas taitungensis, *male and female side by side in Augusta.*
Right, male cones on 'Daddy.'

A Happy New Year means a mild winter, no freezes for us in Florida, and short-lived, minimal freezes to our friends in the Southeastern Palm Society north of us.

Rhopalostylis *in St. Pete? No, a BMW dealership trims all those* Phoenix (dactylifera?) *nearly out of existence. The probable rationale is to make these date palms 'neat'. Horizontal leaves—as we know—are 'messy.' Of course, the well-being or health of the palms never enters into consideration..We sure know that these individuals never grew to this size on site. Is the trimming done by helicopter?*
(Photo by John Green)

Buying tip for beginners:
Ask the seller about the palm or cycad. What are its needs? Can you meet these? How big does it get? Where should it be planted?

Below, a close-up of Bismarckia nobilis *at Phil Stager's place in St. Petersburg on Sept. 20th. (Photo by Chuck Grieneisen)*

For those who complained that there was no picture of Faith Bishock in the September issue, we offer an apology and this undated picture. Cindy Broome is at left.
(Photo by Mike Dahme)

Above, the interior courtyard where more tender palms were planted and (below) the more exposed area with an old Sabal causiarum.

It probably got below freezing in many parts of Gainesville [during a brief early November cold snap]. Fortunately there is a slight urban heating effect in Gainesville, so all of the herbaceous plants I saw on my walk to class today were fine. This cold is very sudden! Most of the palms that died were strap leaf seedlings. From memory, let me see if I can list all of the palms and trees:

Acrocomia totai
Archontophoenix tuckeri
Archontophoenix cunninghamiana 'Illawara'
Allogaptera arenaria
Arenga engleri
Arenga micrantha
Arenga pinnata
Bismarckia nobilis
Caryota urens "himalayana"
Chamaedorea plumosa
Chamaedorea radicalis (x2)
Chamaedorea stolonifera (dead)
Chamaedorea cataractarum
Chamaedorea graminifolia (dead)
Chamaedorea metallica
Copernicia alba (x3)
Dypsis albofarinosa
Dypsis psammophila
Dypsis decipiens (dead)
Dypsis lutescens (x2)
Hyophorbe indica (dead)
Hyophorbe vershaffeltii
Jubaeopsis caffra (dead)
Livistona decora
Livistona decipiens
Livistona australis
Livistona mariae
Livistona saribus (x2)
Lytocaryum wendlandiana
Rhapis excelsa "Singapore dwarf"
Pseudophoenix sargentii
Nannorrhops ritchiana (dead)
Ravenea rivularis (1 died, one is alive and well)
Phoenix roebelenii
Sabal causiarum
Sabal "unknown"
Sabal domingensis
Sabal uresana
Sabal mauritiiformis (dead)
Syagrus romanzoffiana (x2)
Wallichia densiflora
Washingtonia robusta
Washingtonia robusta x filifera

non palms:
Schefflera actinophylla
Monstera deliciosa
Ficus elastica
Epipremnum aureum
Cycathea australis

McCarty Hall Palm Tree Garden on UF Campus, Gainesville

Hello, my name is Kyle Wicomb and I'm an environmental engineering sophomore at the University of Florida originally from San Francisco, California. Since August of last year, I have been attempting to organize a palm garden on UF's campus. Its official purpose is to test the hardiness of certain palm trees. Finding the correct place to get permission in order to start the palm garden was the project's first challenge. I volunteer at the UF Herbarium, and fortunately the keeper informed me where to send in my proposal. After the University's landscaping committee approved my proposal, I had to apply for dig permits, mark off the location of the dig permits, find people to donate palm trees, find a method to transport the palms from South Florida to North Florida, and find a group of people willing to help me plant and water them.

The entire course of the project from beginning to end took almost 8 months, with a majority of the time dedicated to waiting for permits. This project could definitely have not been done alone, and so many people are responsible for making it happen. **People donated** their palms, money, time, and energy in order to make it possible and it was a very enlightening experience to see how a group of people can come together over a shared passion.

The garden covers only about half an acre, and originally had 47 added species and 53 plants total. Unfortunately, not all palms have survived so far, and there are now 41 species and 46 plants. Many specimens arrived as seedlings, so they were not too tolerant of drought or foot traffic yet; however, I am confident that the remaining palms will make a significant impression on the surrounding landscape. **The area** is divided into two areas: a courtyard surrounded by buildings on three sides, and a strip of land on the edge of another building. I put the most tender palms inside of the courtyard, and the hardier palms on the strip of land more exposed to the elements. The vicinity is already home to a sizeable *Wodyetia bifurcata* that has withstood at least two Gainesville winters, and it is also home to perhaps the largest and oldest Avocado tree in northern Florida. Hopefully, the microclimate will defy the odds many of the palms are at, so you will be able to see a pioneering palm garden that successfully pushes the boundaries as to where certain species of palms can grow.

—Kyle Wicomb

Above, Kyle's dorm room: not just for sleeping and studying during the project.

Best Locale for a Demonstration Garden?

"McCarty Hall, named for Florida Governor and College of Agricultural and Life Sciences alumnus Daniel T. McCarty, houses the central administrative offices of the Institute of Food and Agricultural Sciences (IFAS). IFAS is a federal, state and local government partnership dedicated to sustaining and enhancing the quality of human life by developing accessible knowledge in human and natural resources, agriculture and the life sciences. Extending throughout the state, IFAS has developed an international reputation for its accomplishments in teaching, research and service. IFAS includes the College of Agricultural and Life Sciences, the School of Forest Resources and Conservation (in Newins-Ziegler Hall), Florida Agricultural Experiment Stations with 14 major research and education centers throughout the state, Florida Cooperative Extension Service (located in each of Florida's 67 counties), the Florida Sea Grant Program, the International Program for Food, Agriculture and Natural Resources, the Center for Tropical Agriculture and parts of the College of Veterinary Medicine. Located in McCarty Hall D are offices for the vice president of agriculture and natural sciences, dean of the College of Agricultural and Life Sciences, dean of IFAS research and dean of IFAS extension. Other key IFAS offices include alumni and development, external relations and communications, international programs, sponsored programs and personnel."

--from University of Florida website

Suggestions for Beginners in Palms (Part 2):

THE 10 PERFECT PALMS FOR INLAND CENTRAL FLORIDA

[This popular article first appeared in the December, 2003 issue of The Palmateer*.]*

By Dave Witt

I think everyone that grows unusual palms in their gardens should try and make room for some of these. That way you will have something still green & growing after the next "big freeze" hits … These palms were selected based on their ability to grow "problem free" in our region of Florida. If I planted one small specimen in an appropriate spot and left it to fend for itself would it survive? The answer would have to be a resounding yes in order for the palm to be included here. Conceivably one could plant a few specimens of each palm listed here, then just walk away and a perfect palm garden would form, with nothing to do but watch it grow. Also considered were potential nutritional problems and pest hazards. Native palms were excluded from this as nearly all but one or two can qualify. The ten palms are listed in alphabetical order.

Above, Acrocomia aculeata *at Heathcote Botanical Gardens, Fort Pierce.* A. totai*—Dave's recommendation—has been combined with* A. aculeata*, though not everyone agrees with this*
(Photo by John Kennedy)

1— Acrocomia totai

The *totai* surname while maybe not formally recognized is indeed "technically valid" and is the moniker applied to all *Acrocomia* grown in Florida that essentially survive our coldest winters, even temps as low as 20F. For many that is the most important difference in ID'ing a *totai* from any other; *totai* palms have lived through temps as low as 18F while *aculeata* will fry at temps in the mid 20's and be killed off at anything below that. But aside from cold tolerance there are several differences in appearance and growth habit that can easily distinguish *totai* from the more common *A. aculeata*, or any other of the genus. The basic characteristic is that *totai* palms are smaller in all parts when compared to *aculeata*. The fruit & seeds are noticeably smaller in diameter, the overall height of the palm as well as frond length is again much smaller on *totai* than *aculeata*. The fronds of *totai* palms are stiff without much of a bend in them at all and are a gray/green color on both sides. All *Acrocomia* are covered in large black spines from the stem on through the leaf blade. Only the leaflets and fruit are unarmed. These spines can help differentiate *Acrocomia* palms from *Syagrus* palms, a genus they closely resemble from a slight distance.

***Acrocomia* palms** are renowned for their difficulty in germination, taking at least 2 to as many as 4 or 5 years to sprout. Many methods have been employed in an effort to expedite this process from cracking or drilling the endocarp, incubation, hydration with hot water, etc. To my knowledge there is only one fool-proof way to sprout these: bury cleaned seed in a sandy, dry and hottest spot in the ground and wait … and wait, and wait some more. Seeds from my totai palm have began to sprout after 24 months in the ground. No other methods including baggies or community pots in full sun has ever worked for me. As if to make up for the difficult germination *Acrocomia* palms grow extremely quick as juveniles, taking only 6 to 8 yrs from seed to reach fruiting size; *totai* will max out around 15 ft overall, *aculeata* around 25 ft growing in increments of 3 to 4 ft per year once established in the ground. Once this height has been attained they slow down

(Continued on page 10)

10 Perfect Palms for Inland Central Florida

(Continued from page 9)

to only a foot or so per year and begin the reproductive process. The flowers are very aromatic and a musky smell can be easily detected upon their opening.

***Acrocomia* palms** grow without care in our region, in fact they have previously naturalized in several small areas. They seem impervious to nearly anything as adults, as juveniles the biggest problem most have growing them is they baby them too much; before any stem has formed the palm's growth bud is buried below ground and is easily damaged by fertilizer being applied near the base of the palm. Also overly wet or poor draining soils can cause the bud to rot. Other than occasional scale insects they have demonstrated no problems once left to their own devices. They are best used away from walks or areas when children play (due to the sharp thorns) and can be planted in odd numbered groups to form a canopy or singly as a focal point. Once mature the leaflets on older palms are thin and tend to become weather worn and ratty if the canopy is left untrimmed. These palms make a bold statement in the landscape and can be enjoyed for many decades in our region.

2—Allagoptera arenaria

This is probably my favorite "small palm". They grow much faster/better in the ground or in very large containers that will accommodate their extensive root system. These palms are dichotomous but are so underground and will form multiple stems around 3 or 4 yrs from a 1-gal. sized plant. Most palms never reach much past 6 ft in overall height but they easily reach a 6 ft spread around 7 yrs from seed. Nearly all mature palms are acaulescent but there are exceptions (notably the tall specimen growing at USF in Tampa). It has several ft of clear stem! They are best when situated in full sun, there the fronds can show off their unusual grouped leaflets which are very plumose and an attractive silver color abaxially. In their native habitat they can be found growing in close proximity of ocean front sand dunes and other coastal vegetation, making them a perfect choice for areas in need of salt-spray tolerant palms. They are extremely drought tolerant and can handle cold down into the low 20's, even as small palms. Heavy frost can cause some spotting on the leaflets but it is very minimal. Mine has been undamaged as low as 23F.

They also mature or flower early at a small size. Mine did this before it split into different stems. The infructescence is very unusual - the flowers\ fruit are packed tightly together in small bunch held at the end of a long peduncle. The fruit is edible when ripe but only for a short while; it has an apricot or peachy kind of taste. The seed germinates erractically (I usually get around 50%) and has short viability as well. Seedlings can be grown in 1-gal. pots for the first 2 or 3 yrs, then stepped up. Feather leavess begin to appear during the 3rd or 4th yr.

I have yet to notice any particular problems in cultivating these here, they seem immune to most fungus or insect pests (other than scale) which can infest the folds of the leaflets. They can be damaged or killed during high winds from hurricanes/storms though. Apparently the winds twist the crown back and forth, damaging the meristem. These palms can be planted singly as a focal point or in odd numbered groups around a large tree. They can be used in rows to form borders on larger areas as well. They are a real eye-catcher due to the strange leaflet arrangement and should be used and made more available in the future.

Above, Allagoptera arenaria, *Seashore Palm in the Palmz 'n' Weeds Garden in Vero Beach. It has 10 short trunks and has produced most of the seed of this species offered by our Seed Bank. (Photo by John Kennedy)*

(Continued on page 11)

GENERAL RULES FOR CFPACS SALES

ELIGIBLE SELLERS: Any current CFPACS member. **Public Sales:** Vendor participation must be confirmed in advance. **Private Sales:** Vendors may confirm participation in advance or show up as a "walk on."

ELIGIBLE PLANTS: Public Sales (such as the FIT and USF sales): Plants offered for sale limited to palms and cycads unless otherwise noted. **Private Sales** (such as sales following garden tours at someone's home): Any plant may be offered for sale. **All plants** offered for sale must be **healthy** and **disease-free**.

COMPENSATION: All sales will be divided between the seller and CFPACS with the ratio of 80% to the seller and 20% to CFPACS.

TAGGING REQUIREMENTS: Following is a sample tag:

One of the highlights of CFPACS meetings is finding that special palm or cycad that has been on your wish list for years. Finding that hard to get plant is made possible by our vendors - the palm and cycad growers among our membership who bring plants to meetings to sell . . . Some of our vendors are professional nurserymen, but most are backyard growers just like you who have some extra plants to sell - perhaps to make room for more . . . . We invite you to become a vendor . . . These sales rules give you the information that you need to go from grower to seller at CFPACS events.

—Bob Johnson, CFPACS President

On this tag, "71" is the vendor's number. The palm species is clearly printed. The vendor number is repeated next to the price on the right side, which is clipped off at the time a buyer pays for the plant—to credit the vendor.

ALL TAGS SHOULD PROVIDE THE FOLLOWING INFORMATION:

Plant Identification: Scientific names are not required but are encouraged.

Optional Information: You're the boss here. Some examples of this are:

"Native to . . . " "Endangered Species"
"Hardy" or "Tender" "Rare"
"Sun" or "Shade"
or whatever you want to promote sale

Cashier Record: For you the seller, this is probably the most important part of the tag. At sale time, this part of the tag is removed with scissors so that CFPACS will have a record of the transaction.
We ask that you circle your vendor number to prevent confusion with the price in tallying for seller reimbursement. The cleaner and more legible the cashier record, the less room there is for mistakes in reimbursement.

PRICING: Whatever you feel the market will bear. **Nearest dollar only** - no fractions, please.

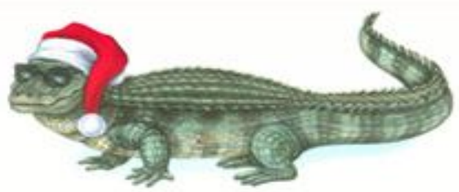
VENDOR NUMBER: These are assigned by the CFPACS treasurer.

TAG SIZE & COLOR: A variety of tags are acceptable. Color tags are fine, but be sure that the color doesn't obscure legibility. Tags should allow for the easy removal of the cashier record.

TAG AVAILABILITY: Two sources of tags are **Horticultural Marketing and Printing** (www.hortmp.com) and **Sato Labeling** (www.satolabeling.com). Some sellers have used mini-blinds, cut to the appropriate size.

TAG MARKING: Please use an indelible/permanent marker.

REIMBURSEMENT: Sales earned by the vendor will be reimbursed as soon after the sale as possible, but please al-



Texas Phoenix Palm Decline

Texas Phoenix Palm Decline **is** caused by a phytoplasma related to, but distinct from, the phytoplasma causing Lethal Yellowing (LY). A phytoplasma is a wall-less bacterium.

First identified in Texas, it is not clear when the disease arrived on Florida's West Coast, but was noticed around Ruskin in 2006. The primary victims are *Phoenix* palms: *P. canariensis, P. dactylifera,* and *P. sylvestris*. All *Phoenix* species would appear to be susceptible, though this is not yet clear. *Phoenix roebelenii* has been reported as dying in Texas.

The most horrifying threat of the disease has been to our native ***Sabal palmetto***, now dying in Sarasota, Manatee, Pinellas, Hillsborough, and DeSoto Counties—reportedly also reaching Lakeland (Polk County). What percentage of this species has been killed is not yet known, but the disease can reasonably be expected to spread throughout the state.

Early symptoms include the premature drop of most or all of the fruit nearly at once. Then the inflorescences die. The foliage becomes discolored, with the oldest leaves quickly turning red-brown to darkbrown or gray. Discoloration begins at the leaf tips.

More dead leaves are apparent than would be normal, though this may be missed if dead leaves are ordinarily removed quickly.

The spear leaf dies, indicating the death of the palm, which should be quickly removed and destroyed. The only preventive treatment suggested, so far, is a trunk injection every four months of oxytetracycline HCl (OTC) .

In addition to *Sabal palmetto* and the several *Phoenix* species, some Queen Palms (*Syagrus romanzoffiana*) have also died but these were planted in a nursery heavily infested with the new disease. It should be pointed out that the Fusarium wilt currently afflicting Queen Palms and, now, Washingtonias is a different disease.

The information above has been lifted from UF Extension Publication PP243 by Nigel Harrison and Monica Elliott, also from a few online postings on the topic.

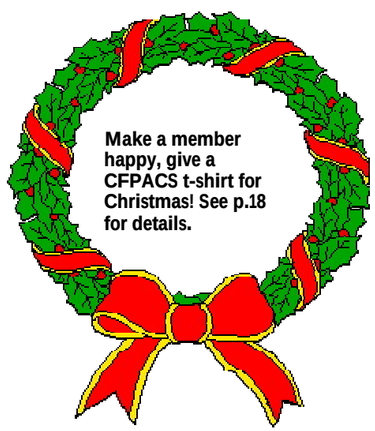
—John Kennedy

This variegated Lady Palm, Rhapis excelsa, *is one of many palm delicacies awaiting guests at the CFPACS December 13th meeting. (Photo by Rob Branch)*

FYI

Just to show you that CFPACS keeps up with the Great World outside Florida: we have a member in Wasilla, Alaska. We do not have a member in Wilmington, Delaware—though my Aunt Madeline (age 95) does live in Wilmington.

—John Kennedy



Arenga engleri *growing in full sun is more compact and lighter in color than when planted in partial shade.*
People with sharp eyes will be able to spot the red fruit (stinging crystals, don't touch).
(Photo by John Kennedy)

3—Arenga engleri

This is an extremely cold hardy and shade tolerant palm suitable for growing as a single specimen or planted in rows to form a living barrier. Its spread is equal to its overall height, often exceeding it. There are no thorns or sharp edges so it can be used around walkways or other areas with high foot traffic. Stems mature and begin to flower around 12 to 15 ft. overall. The palm is hapaxanthic and once the individual stem has set seed it dies. For a solitary species like *A. pinnata* this would mean the death of the palm itself but since *engleri* clusters at a significant rate there are always plenty of new stems to continue growth.

The flowers are a bright orange and very fragrant. Ripe fruit is an attractive reddish maroon and cannot be handled by bare hands due to the presence of calcium oxylate crystals that will burn the skin. Once soaked in water for several days the crystals are dissipated and the fruit is easily removed from the seed. I get best germination results (around 75%) by planting the seed in a community pot placed in full sun under shadecloth. The seed takes 4 to 6 months to sprout. Overall growth is slow for this palm, it develops but 1 or 2 fronds per stem each year. But each successive frond is markedly larger than its predecessor so it gains some character even when very small. They can stay in 1-gal. containers for 3 or 4 years, then they are ready to cluster and should be moved into 3-gal. sizes or larger.

I like to use these palms underneath of large oak trees that let in filtered sun. This way the palms can show off the back sides of the wedge-shaped fronds which are colored silver on the leaflets and covered in tomentum on the stems. They can be grown in full sun provided they are supplied with extra water. I have yet to see any engleri develop any type of nutritional deficiencies or pest problems. This palm is vastly underused in our region and really should be planted more, especially in public areas or places where poor lighting make it difficult to grow palms. Their ability to withstand low light levels has me thinking they have the potential to make a great interiorscape subject as well.

4—Bismarckia nobilis

This might be my favorite palm of them all, a large, imposing grandeur of a plant that cannot be mistaken for anything but what it is and cannot be ignored no matter where it resides. The notion that these palms are too large for average lots or small homes is complete rubbish - they can grow healthy

(Continued on page 12)

Bismarckia nobilis, *here planted in Hawaii. Remember the picture in the June issue of a Bismarck unwisely planted 8 feet from the front of a house. Gets BIG fairly quickly. The black stuff is crushed lava rock used as mulch.*
(Photo by Geoff Stein)

10 Perfect Palms for Inland Central Florida

(Continued from page 11)

and care free if left to hold 5 fronds at a time or 25 fronds. It all depends on your personal preferences and how you trim it to fit where it is placed. I have been growing many of these for about 10 years now, most of them from seed originating from various locales. The silver-blue color is variable, as is the cold tolerance. The only way to find out is to grow some for yourself and see. For best color the palms have to be grown in full sun, the more the better. Shaded palms can lose some of the glaucous hue but will not turn green. There are green leafed forms, these are attractive in their own way but are not nearly as cold hardy as the silver-blue palms. The green palms defoliate at temps in high 20's, some but certainly not all silver-blue palms can go undamaged down to 23F. I leave all of mine out, from newly germinated one-leaf seedlings on up to 15-gal. sized palms, unprotected each winter to try and weed out the weak sisters. It seems to be a genetic thing, some from the same batch are more cold hardy than others. I have yet to figure out a pattern in them for this.

The walnut sized seeds germinate at a high rate for me in full sun liners (1-gal. pots are too small, they inhibit the 1st leaf's normal growth). Once a 2nd or 3rd leaf has formed demonstrating some root branching, they are moved into 3-gal. pots. For such a strong palm the roots are extremely brittle and if damaged usually result in a quick death for the seedling. They stay in those through the end of their 2nd yr., until several fan leaves have formed and the roots are busting out through the drain holes. Then they are stepped up into larger pots each year after. I like to wait on several fan leaves to form, this way I can test out the cold hardiness as well as pick out the most colorful palms. When grown in full sun many palms at this size develop an intense purple-red color to the leaves; these usually turn out to be the most silver-blue palms as adults. These palms are root monsters and would much prefer being planted in the ground instead of held back in pots. Containerized palms can grow around 4 to 6 leaves per year but once in the ground and anchored these palms really blast off in overall growth. The 1st year I normally get 4 to 6 leaves as the large palm has to anchor itself through massive root development. The 2nd year I get anywhere from 7 to 9 leaves, the 3rd year I get 12. They all open from the end of June through December as well. Each frond is easily 10 ft across and palms can attain a 20 ft spread around 7 or 8 yrs of age. *Bismarckia* palms are dioecious (separate male & female plants) so I have planted several in my collection. The largest is a female, it flowered around its 10th year and has done so for 3 years now. The 2nd largest is about 3 yrs younger so hopefully it will flower in Spring of 2004 and will be a male. If not there will be younger, smaller palms coming behind it.

Juveniles and adults are very drought tolerant but prefer lots of water during the summer; it seems to speed up growth somewhat. Overly wet soils can cause some potassium deficiency in older palms and possible bud rot in younger palms. The growth bud on these is buried around 3 ft below soil level and once planted the palm should not be moved until it has about 3 or 4 foot of above ground stem formed. I have moved smaller palms, but fatalities always occur, the success rate is 50% at best. Even those are setback for a year or more. On young palms (without any stem) fertilizer should be applied lightly, and away from the growing point so not to cause salt-burn to the roots. I have yet to notice any insect or fungal problems with *Bismarckia* palms. Their popularity appears to be growing with each passing year and they can be found in various chain store garden centers, unfortunately at ridiculously high prices. These palms should be used as focal points in gardens or in groups to form canopies or line roadsides. Because of the large size of the eye-catching fronds they can be placed in front of large dark colored backgrounds to create a memorable impression, even on people that normally do not care for palms in general.

5—Chamaedorea microspadix

There are at least a dozen of the hundred or so Chams in cultivation that perform well in central Florida but this is my favorite for several reasons. The first and perhaps foremost is its incredible cold tolerance; mature palms have recovered from temps down into the low teens, as far north as Gainesville. The 2nd is the very attractive growth habit, a great many stems growing up spaced well apart to reveal a palm that is remarkably similar to a smallish thin bamboo planting. The leaves are also unique, a bluish green color with a thick leathery texture to them. The preceding is how a true microspadix appears, which is completely different from

CONFUSION IN THE FLORIDA ZAMIAS

(Continued from page 20)

represent the species. Eckenwalder chose the Commelin reference, thus affixint the spercies name *Z. pumila* to the plants from the Dominican Republic. The other three names actually refer to Mexican plants today considered part of *Z. furfuracea*, but that's another story! He hypothesized that only one species with two subspecies exists in the entire Caribbean region. If that hypothesis were true, *Z. pumila* would apply to the Florida and all the other Caribbean plants; most experts today, however, believe the Florida zamia is distinct and therefore needs its own name.

The name *Zamia integrifolia* is being used by some for the Florida plants, but it too has a serious problem. Linnaeus' son, Linnaeus filius (abbreviated L.f. or Linn.fil.) was a contributor to a new system of plant classification, *Hortus Kewensis*, published by William Aiton in 1789. He used the name *Zamia* in that work, but coined new names for the plants he considered to belong to that genus, which included *Z. integrifolia* (as well **as *Z.furfuracea, Z.debilis*** and two others that now belong in *Encephelartos*).

An important part of the description of *Zamia integrifolia* is that L.f. equates *Z. integrifolia* to the one his father called *Z. pumila* (Fig. 2). In those times this was common because each author was creating his own catalog of species. Some were bound to be the same as in earlier species catalogs. The ICBN decided much later to employ the principle of priority in determining valid species names, so the earlier name coined by Linnaeus, *Z. pumila*, ia valid name and the latter name coined by his son, *Z. integrifolia* , is referred to as a "superfluous name" or "later synonym," and is therefore not valid.

What now? Following through the early literature, the earliest name (after Linnaeus and his son's classification systems) that specifically refers to a Florida plant is Alphonse DeCandolle's *Z. floridana* (1868), which then becomes the valid name for Florida's coontie, if there is only one species. If you believe, as I do, that there are two species, we go back to the literature an herbarium specimens and 1)find out which plant DeCandolle was naming, 2)find the later names referring to plants in Florida, 3)determine which plants the later names were referring tok and 4) apply the earliest name that is applicable to the eastern wide-leaflet entity. The name *Zamia umbrosa* J.K.SMALL may be the earliest name for this second species, but some further work is needed.

The same principles I have discussed above apply to the naming of further species. Each has to have the earliest valid name applied to it. At the end of one's studies, if any species lack valid names, then we may describe a new species and supply their name(s).

DeCandolle, A. 1868. *Zamia floridana. In: Prodr.* 16 (2.2): 544.

Eckenwalder, J. 1980. Taxonomy of the West Indian cycads. *J.Arnold Arb.* 61:701-722.

Linnaeus, C. 1763. *Zamia pumila. In: Species Plantarum, Ed. II.*

Linnaeus, C. filius. 1789. *Zamia integrifolia. In:* Aiton, *Hortus Kewensis*, pp. 477-479.

Ward, D. 2001 *Zamia floridana* A.DC. var. *umbrosa* (Small) D. B. Ward. *In:* New combinations in the Florida flora. *Novon* 11(3).

TAXONOMIC AND NOMENCLATURAL CONFUSION IN THE FLORIDA ZAMIAS

[This article is reprinted from the June/September 2008 issue of The Cycad Newsletter, *by permission of the author/editor.]*

By Dr. Bart Schutzman

Though horticulturally not as splashy as some of the South and Central American zamias, the Florida zamias are a "hot commodity" in subtropical regions of the US, desired as horticultural plants for their durability and cold hardiness, and their status as the only native US cycad. Because of the high demand, questions of proper nomenclature and classification come to the forefront of many discussions:

How many species are indigenous in Florida?

Are the Florida zamias distinct from other Caribbean plants?

Unfortunately the answers to these questions demand consideration of the rules of botanical nomenclature, somewhat like a visit to the lawyer or the dentist: Binomial nomenclature, the combination of a generic and specific epithet, was being used sporadically by naturalists before Linnaeus, who adopted it for his system of nomenclature. The rules of botanical nomenclature set the starting point for most binomial names as 1 May 1753, the date on which Linnaeus' first edition of *Species Plantarum* was published.

Botanical names are applied using the principle of priority – the earliest name used for a species is the valid one unless a later name is conserved by a special vote of the International Congress of Botanical Nomenclature (ICBN).

A common mistake in taxonomy is to research names first. This can prove to be a flaw because the first part of a study is deciding how many species there are, much more time-consuming and difficult than researching names. In the case of the Florida Zamia, we need to know if the Florida populations are distinct from the other Caribbean zamias, and if so, how many species there are in Florida.

Unfortunately, this part of taxonomy is not as cut-and-dried as nomenclature, because opinions may differ. It is commonly accepted today that Florida zamias are distinct from other Caribbean species, but whether the Florida plants constitute one or more species is more controversial. There may be as many as four species in Florida, depending on who you ask. My own opinion is that there are two species in Florida. These would be:

- **An evergreen**, wide-leaflet east coast species ranging south from the northernmost part of the state
- **A sometimes** semideciduous, narrowleaflet species distributed from near the Florida panhandle southward along the west coast and across the peninsula in the southernmost portion at least as far as the Miami area.

D.B. Ward (2001) favors the same two taxa but elevates them only to the level of variety, *Zamia floridana* vars. floridana and umbrosa.

Once the number of species is determined, the next task is to apply the correct names to them. We are dealing with a somewhat trickier situation in the case of the Florida zamias because of Eckenwalder's treatment of the Caribbean zamias (1980). What does what Eckenwalder did have to do with the Florida zamias?

To answer this, we have to look at Linnaeus' description of ***Zamia pumila***, the name Eckenwalder used for the Caribbean zamias (including Florida).

Fig. 1 is Linnaeus' description in the 2nd edition of *Species Plantarum* (1763). Notice that no herbarium specimen is cited in the description, but four prior descriptions (not binomials, but polynomials) are listed:

1. Philip Miller's "Palma fructu clavato polypyreno" in his 1759 *Gardener's Dictionary* Ed. 7

Fig. 1. Carolus Linnaeus' 1763 description of *Zamia pumila*

Fig. 1. Linnaeus filius' 1789 description of *Zamia integrifolia*, a later synonym of *Z. pumila*

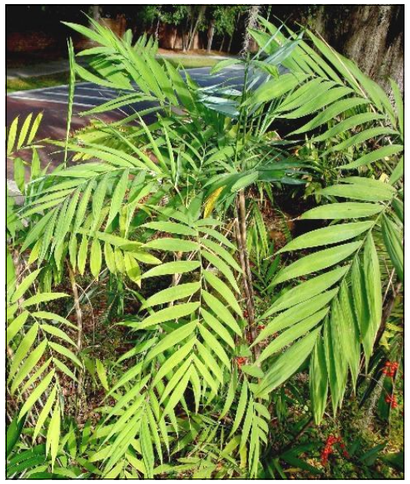
The Cycad Newsletter 31(2/3) June/September 2008 Page 12

2. Jan Commelin's "Palma prunifera…." In his 1697 *Horti medici Amstelodamensis…*
3. Leonard Plukenet's "Palma americana, foliis polygonati…." In his 1769 *Almagestum Botanicum…* (Linnaeus' abbrev. "Phyt").

4. Christoff Jakob Trew's Palmifolia femina in his "Plantae Selectae" tab. 26 (Illustration by friend Georg Dionysus Ehret, labeled "Palma fructu clavato polypyreno")

When no specimen is listed by the author, the code allows a lectotype (which can be a specimen, an illustration ord one of the published earlier names) to be selected to

(Continued on page 21)



Chamaedorea microspadix, *a small cold-hardy, clumping palm for shady places.*
(Photo by Bob Johnson)

Copernicia alba *on the Florida Tech campus, Melbourne. Note the pattern of cut petiole bases.*
(Photo by John Kennedy)

10 Perfect Palms for Inland Central Florida

(Continued from page 12)

look-a-likes *C. seifrizii* or *C. costaricana*. It takes but 4 or 5 years to grow from seed into a mature specimen with several stems. They prefer mostly shade but can handle full sun for several hours if necessary.

Just below the crown of leaves are held small clusters of attractive orange-red fruit (the look-a-likes have dark black or purple fruit); these do contain calcium oxylate crystals, a major skin irritant. But the fruit comes off easily after a slight rubbing (use thin plastic gloves for this). All Chams are dioecious so males & females would be needed for seed production. Stems can be divided but with limited success. Any divisions will need their own roots to survive. Seed germinates at a high rate (90% or better) in under 6 months. It takes about one year to get feather leaves, and another full year for them to begin forming multiple stems. Typical mature height is around 8 ft overall, the spread can reach that size as well but only after many years.

These palms can be used for indoor plants but will develop mites if not taken outside and hosed down periodically. They are best used as a living screen in shaded areas, as a border hedge-type planting or in pool decks where they cannot outgrow the area. There are reports of them succumbing to nematodes in our soils but I have yet to witness this myself. One way to combat this if suspected is to place pieces of concrete in the soil near the palm's roots or periodically add in some dolomite lime to raise the soil pH above neutral (7). In habitat these palms grow in pine oak forests with underlying limestone so alkaline soils shouldn't be a problem. As with most members of this genus they are very resistant to insect or fungal problems and need only a slight amount of fertilizer to grow well; older specimens under oaks or other vegetation grow just fine without any additives at all. They also make terrific container palms for many years and have no thorns or sharp edges so can be used around walkways or other high traffic areas.

(Continued on page 14)

10 Perfect Palms for Inland Central Florida

(Continued from page 13)

6—Copernicia alba

This palm's habitat is mainly in seasonally inundated areas of Brazil where it is subject to lengthy droughts as well as periodic flooding. So once established it adapts quickly to our region's weather tendencies of either too much or never enough rainfall. Adult palms are extremely cold hardy, undamaged by temps into the low 20's. One adult develops hundreds and hundreds of seeds by itself. Seeds are easy to sprout, usually in under 2-3 months, and at a high rate. Presoaking the seeds helps increase germination rates. Growth is moderate until some fan leaves are formed, seedlings will usually form around 6-8 strap leaves before splitting into fans. Seedlings also have small teeth along the edges of the leaves, a trait that disappears as the palm ages. Full sun/high heat encourages new growth and small palms can take this right from the start. They do have a large root system and will quickly fill up small containers before much top growth begins.

Palms should be grown in full sun and after a few years will develop a waxy coating to both sides of the fronds; the amount of wax is variable, some are much more blue/silver than others, this appears to be a genetic trait. Once the palm develops some stem the frond production accelerates dramatically. The crown takes on a strange appearance as all of the older fronds begin to lay out flat and all of the newer fronds are held somewhat erect and tightly together. During the summer they can average over a frond per week! However gains in overall height are slower - lots of leaves but maybe just one foot gained per year. The leaves themselves are not large, around 3 ft. in diameter held at the end of 2-3 ft. petioles. The tight crown allows it to be grown in more constricted areas where many fan palms cannot be used. However the petioles are covered with many black, curved thorns that can easily tear the skin or anything close to them; so they are best planted away from high traffic spots. The canopies of older palms should be trimmed up to remove the oldest fronds, the palm can take on a ragged appearance if left alone for 6 months or more. The stem has an attractive pattern of old leaf bases when pruned tightly. I like to use these palms out in the open, in odd numbered groups as a focal point;

Syagrus X Butia, *also known as* XButiagrus, *or the Mule Palm, at Leu Gardens, Orlando.*

(Photo by Eric Schmidt)

group plantings can also create a canopy, one palm's spread is too small for this. I also like to plant them around other plants with dark green foliage to help set off the waxy fronds as an accent.

7—Hybrid - Syagrus X Butia

Including this palm might be cheating a bit but there are so many of them in central Florida, more than any other place in the USA, possibly the world. It just suits our area so well I had to list it. Palm "snobbery" has led to a somewhat inexplicable contempt for the beautiful parents of this palm, male *Syagrus romanzoffiana* and female *Butia capitata* (the opposite mixture does not work for some unknown reason); hence here the *Butia* comes after the "X" as this means from. But most people use *Butia* first to describe it, often calling them Butiagrus palms; perhaps more appropriate would be Syagrutia??? Another common name is Mule Palm.

(Continued on page 15)

GET YOURS!

CFPACS t-shirts are now available. Get one at the December 13th meeting in Sarasota, at meetings during 2009, and by mail. Give witness for palms and cycads! If you prefer to wear larger sizes (maybe as a nightgown/shirt?), or require a larger size, we have them. Payment by check (cash money also accepted) or by credit card using PayPal. Instructions for PayPal are on page 30.

Sizes and prices:
Small, medium, large, XL - $12 ea.
XXL and XXXL - $14 ea.

Colors:
White
Sand—sort of khaki
Yellow
Lime Green—light green, as in the logo
Serene Green—a mossy green

For shipping (US only):
__FL residents please add 6.5 percent sales tax
__Shipping charges: please add $4 for one shirt, $1 for each additional shirt (i.e., 1 shirt for $4, 2 shirts for $5, 3 shirts for $6, etc.)
__Please make checks payable to CFPACS and mail to PO Box 560907, Orlando, FL 32856 - OR - pay with a credit card via PayPal

*Above, the proof sheet from the vendor, with the color choice. Left, members wearing the 'old' t-shirt—now a collector's item—at Dr. Young's in Tampa two years ago. Note that the 'new' t-shirt has one more line beneath the CFPACS logo on the back—**Plant a Palm!** Tom Broome (hat), Tom Barrese (dark shirt), and Neil Yorio (?) back.*

(Photo by Bob Johnson)

10 Perfect Palms for Inland Central Florida

(Continued from page 17)

groups but far apart (around 20-30 ft.). They are also great for lining streets or framing entrances.

10—Sabal causiarum / domingensis

I admittedly had a tough time coming up with the 10th palm for this list. I almost decided to go for one native species but after some thought I realized that this palm suited all the requirements. Though I did cheat a bit and include two species, it is nearly impossible to decipher any differences between the two palms in appearance or growth habits. A 3rd species, *S. maritima* is said to be a match for these two as well but I have no personal experiences with it. The *causiarum* seems to be a bit slower growth wise and *domingensis* tends to show some foliar damage in heavy frost but both are very tolerant of the worst freezes. These palms very much resemble our native *S. palmetto* for about the first 5 years or so of their lives. After that things begin to change some. For one the frond production increases noticeably, from 3 or 4 leaves earlier they now make twice that. The frond size changes as well, the petiole become much longer and thicker, the circumference of the leaves themselves is in excess of 3ft, often reaching 5 ft. Think of a green *Bismarckia!*

For most *Sabal* it apparently takes about 10 years (give or take a few) for them to finish their underground "stem development". After this time you can observe the beginnings of an above ground trunk forming. Still overall growth is slow, about 1 to maybe 1.5 ft per year. A single adult can produce copious amounts of seed, which germinate easily in warm weather. Most sprout in under 3 months and at a very high rate (90%). Growth is very slow as seedlings, only 3 to4 strap leaves per year for the first 3 or 4 years. Once fan leaves form the growth rate picks up a bit. It also helps to use large containers to expedite root development. If pot-bound they usually slow down or stop growing all together. I like to use 1-gal. pots for the first 2 years, then 3-gal. pots for the next two years. After that it's best to get'em in the ground.

Sabal palms are oblivious to just about any type of insect or fungus provided they are planted in a suitable spot. Shaded palms tend to have more problems than specimens in full sun. They can handle overly wet soil during the growing period but prefer to be on the dry side during the coldest months. Young palms will tend to develop bud rot in constantly wet and shady conditions. Due to their underground growth they are extremely drought tolerant, even as tiny seedlings, all the way up through adulthood. They can handle cold down to 18-20F before any damage occurs, sometimes even lower. They have very little needs in the way of fertilizer or irrigation but respond very well to both. It is best to use a slow release type fertilizer around them as small palms due to the underground bud. This palm is massive in overall size even as pre-trunking juveniles, and tend to look best if planted alone or in well spaced groups of 3 to 5. They can make a nice canopy for understory plantings as well, with a spread of nearly 20 ft. I like to use these palms in areas where most palms have trouble growing (poor soils, lack of irrigation, etc.). Once established they can provide a nice accent planting for these spots as well some shade and structure for other plantings.

[Dave Witt, when asked in November if he had any changes or additions for his list, replied that he thought that it had held up pretty well, that he would still recommend these species.—Editor]

Left, Ruth Sallenbach holds the book on tropical plants that she successfully bid on at the Palm Beach Palm & Cycad Society's annual picnic and auction on Sept. 27th. Several Central Floridians attended the Lake Worth event at the Sallenbach palm paradise, including Teresa Gompf (right). (Photo by Mike Dahme)

Left, Livistona decipiens [decora] *growing in Australia. (Photo by Daryl O'Connor)*

10 Perfect Palms for Inland Central Florida

(Continued from page 14)

This comical term is used as the palm cannot reproduce on its own, an admirable trait as far as I'm concerned this keeps the populations low and helps to preserve the original parents' lineage, especially considering how ubiquitous both species are in our region. Seeds have been produced but none grew into actual plants (probably lacking a viable embryo to begin with). Flowering palms may be back crossed with pollen from *Syagrus* or *Butia*, and possibly close relative Jubaea to produce viable seeds - though rare are the number of actual palms produced in this manner.

This palm is the perfect example of the phenomenon known as hybrid vigor. It takes the best attributes of both parents and blends them seamlessly together to create a palm unique on it's own terms. When taking into account how variable both parents are the hybrid palms are naturally a mix-matched lot; some with stiff recurving foliage ALA *Butia*, others with the lax, graceful droopiness of *Syagrus*. Often you can look at dozens and never see the same palm! The only characteristic I have noticed that is not intermediate on these is foliage color - it is always green, no matter how silvery blue the *Butia* is. If well cared for these palms will develop a thick stem ALA *Butia*, much larger in diameter than normal *Syagrus*. Seedling growth is quick and robust, not quite as tall or in length as *Syagrus* but more than *Butia* would produce. Feather leaves appear during towards the end of the 2nd or beginning of the 3rd year. Growth rate for juvenile palms is in between the parents rate - I would classify it as moderate, around 2 ft. per yr. Where *Butia* is 1 ft. and *Syagrus* is 3 ft. Cold tolerance is also in between the parents; there is some variability (as with all palms with a wide distribution or habitat as it were). But most adults can handle temps down into the mid-teens before damage occurs.

I like to use these palms in many different ways: planted singly as an accent palm, or to frame driveways or other entrances; also planted in groups to form a canopy for shade loving plants. Other than occasional scale insects they have no nutritional problems associated with *Syagrus* in alkaline soils or *Butia* in wet heavy soils. Young juvenile palms can develop potassium deficiency in wet conditions or fungal spots along the frond stems if shade grown (ALA *Butia*). But as the palm grows larger they seem to grow out of this on their own.

8—Livistona decipiens

[officially now *Livistona decora*]

There are a great many members of the genus *Livistona* that will grow "problem-free" in our region; species *chinensis*, *australis*, *saribus* and *rigida* come to mind the quickest (there are several more) but if I had to pick one out of the entire genus it would be *decipiens*. Most all other "Liv's" have some resemblance to another palm species but decipiens can differentiate itself from nearly any other palm I have seen by virtue of its deeply and finely divided leaflets. These leaflets will twist around and swirl during windy conditions; at night during a breeze they make an eerie shimmering noise as they rustle

(Continued on page 16)

Welcome New Members!

Joined since September 1

Charlie Fellmeth, Venice
Brenda Funaro, St. Petersburg
Michael Kane, Ft. Pierce
Terry Mullins, Holiday
Roland Schnabel, Temple Terrace
Alan Shobert, Tampa
Gina Valentino, Sarasota
Peter Weiss, Melbourne

Phoenix sylvestris, *also called Wild Date Palm or Indian Date Palm, has a more slender trunk than the more commonly seen Canary Island Date Palms.*
(Photo by D'Asign Source)

10 Perfect Palms for Inland Central Florida

(Continued from page 15)

together. Another unusual aspect of this palm is that it will hold its entire crown of leaves for a great many years, much longer than most other palms. The fronds remain in complete health from top to bottom, and on some specimens I have seen fronds at ten years old in fine condition. The overall effect is remarkable as the palm takes on the appearance of a living wall or mound of fronds well in excess of 15 ft or more! If trimmed away the leaf bases remain for a great many years as well.

L. decipiens is a fast grower, the key being once established. If not they can linger and grow a horribly slow death for several years. The most important part of getting a *decipiens* (or most any other Liv) to grow well is to literally drown the root zone in water for the first month in the ground. Almost daily soakings until puddles form will usually suffice. They prefer swampy soils that rarely if ever dry out but are very tolerant of drier sandy soils once some initial growth has begun. Pre-flowering juveniles can grow 40-50 fronds per year (much slower in containers) and about 2 to 3 ft of overall hgt per year as well. They will continue to grow all year long, rarely slowing down in the colder months. Once they have flowered the overall growth does slow down some. Flowering adults can take 15 to 20 years from seed. Even very small palms prefer a consistently wet soil or potting medium. I have yet to see this palm develop any nutritional deficiencies here but have heard of (and witnessed) the growing point of older palms twist and bend in a corkscrew fashion. This was attributed to boron or some other micro nutrient problem, to my knowledge the palms that suffered from this did recover.

L. decipiens grown in full sun appear to be more robust growers but there are many fine specimens of this palm growing in shady conditions as well. This is true for juveniles as well as adults. Very young palms will have a hint of red or maroon to the leaf veins and edges; this fades away by the time the palms are head high. The edges of the fronds are also armed with tiny thorns when young. The petioles are heavily armed with small thorns from juvenile through adult. Newly removed leaf bases reveal an attractive albeit temporary ring pattern on the stem. The black seeds germinate quickly (one to two months) and at a high pct. Initial growth is quick, then they slow a bit until fan leaves are formed, usually late in the 2nd or 3rd year. Young palms will develop a substantial root system before pushing out a lot of top growth, especially when containerized. I've yet to notice any insect or pest problem with this palm and adults can take cold down to 18-20F before any damage occurs. These palms are best used in odd-numbered groups to form a focal point or a small canopy for other plants that prefer some half-sun filtered light. The divided leaflets allow a

(Continued on page 17)

10 Perfect Palms for Inland Central Florida

(Continued from page 16)

decent amount of sunlight through their canopies even when mass planted. They also look nice planted in a row to line streets or entrances.

9—Phoenix sylvestris

Just like having to list a *Livistona* is a virtual requirement for any serious palm garden there was no way this article would be written without including one member of the Phoenix genus. The *sylvestris* palm is without question the best Date Palm for all inland areas of central Florida. While the milder coastal sections might be able to get away with growing *P. rupicola* or *P. roebelenii* those two species are almost always cold damaged by inland winters. The other commonly grown Date Palms, *P. canariensis* and *P. dactylifera* are extremely frost resistant but are not so happy with our region's combination of constant heat n' humidity. While both of the aforementioned Dates are prone to various fungal diseases the *sylvestris* palm thrives and looks its best in these conditions. And it is extremely tolerant of even our worst winters, suffering no damage down into the teens in most areas.

Phoenix **palms** have one of the most unusual leaf forms in the palm kingdom: induplicate pinnate. This alone can distinguish them from any other palm genus. The foliage of *sylvestris* is a waxy bluish gray color, very much resembling *dactylifera* fronds. Young specimens of each can be difficult to tell apart, especially when very young. As they age *sylvestris* palms develop an orange tinge to the leaf bases. And the foliage is more relaxed and less upright. Large specimens can hold healthy fronds that droop below horizontal level while *dactylifera* cannot, at least not in Fla. On large juveniles and adults *sylvestris* leaves are much shorter in length than *dactylifera*, but overall the crown of *sylvestris* is larger; there's just a lot more fronds in a *sylvestris* crown. Lastly *sylvestris* palms are solitary, no exceptions; *dactylifera* palms sucker, often profusely. There are a great many hybrid specimens throughout Fla., and with various amounts of backcrossing in them some specimens are virtually unidentifiable, having traits of two or even three species in them. *Phoenix* palms are dioecious and all species will freely hybridize within the genus. Often it is difficult to obtain a "pure" strain of *sylvestris* or most any other *Phoenix*. Your best bet is to start them from a reliable seed source.

The seeds germinate quickly and easily, usually in under 3 months and at a high rate. The fruit or dates are reddish/purple when mature and most are edible but a bit mealy in texture. Here in Florida they are much easier to form and mature than *dactylifera* dates. Initial growth is slow and small juvenile palms can take 3 or 4 years to turn into something worth looking at. Hence the popularity of bringing in larger palms from date groves in western USA. Around 6 or 7 years of age the palm begins to accelerate its growth some, and eventually a slight stem begins to form. At this stage one can expect about 1 to 1.5 ft of overall height gained per year; healthy palms will develop 30-40 leaves per year. *Phoenix* palms will also begin to flower at this stage, sometimes sooner. The leaflets are numerous and dagger-like at the tips. They should not be planted where children play or any other high traffic areas where accidental contact can take place. These are large palms eventually and are best used as solitary specimens in the landscape or planted in odd numbered

(Continued on page 18)

Below, Sabal domingensis. *Only the taxonomists can tell the difference between this palm and* S. causiarum, *so close is the similarity. The two West Indian* Sabals *might best be described as* Sabal palmetto *on steroids: much bigger, much faster than the Florida State Tree.*
(Photo from Fairchild Tropical Botanic Garden)