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 * **RENEW YOUR MEMBERSHIP TODAY!** If you have forgotten, in the frenzy of *
 * after-Christmas bill-paying, and actually let your membership lapse, this is the last issue of *
 * the newsletter you will receive. Send your check —made out to CFPACS—for \$10 (three *
 * years for \$25) to Membership Chair, 4645 Canterbury Drive, Land O'Lakes, FL 34639. A *
 * bargain price, of course, for receiving this sterling publication and for continuing contact *
 * with other palm/cycad nuts. The membership period is January to December. *
 * * * * *

The Palmateer

Volume 21, Number 1 Central Florida Palm & Cycad Society March, 2001

Our Next Meeting:
Merritt Island & Beaches—
Three Gardens Plus Palm Sale
Saturday March 10th
Our first stop: We will begin the day with a tour of Scott Ward's Indialantic garden, 500 Orlando Blvd. Scott has certainly achieved the "tropical look" in his well-tended garden, which includes a very nice collection of palms, cycads, and bromeliads. (See recent pictures of Scott's garden in the Dec.'00 issue of *The Palmateer* pgs.26,34) Parking will be at Orlando Park, which is right next to his home.
Our second stop: Next we will go to Cocoa Beach for a tour of Bud Wideman's garden, 777 Nassau Rd. Bud has a well-established, unique collection of palms already well known by many members. Some of these include: *Arenga pinnata*, *Tritbrinax campestris*, *Hyphaene*, *Actinorrhytis calapparia*, and the incredibly beautiful *Livistona inermis*, to name a few.
Our final stop: After lunch we will reassemble in Merritt Island for a tour of Steve and Cindy Rael's garden, 50 Melbourne Ave. The Rael's are interested in a wide variety of plants. Cacti, succulents, lots of bromeliads, and of course palms are some plants you will see in their garden. Most notable is a "picture perfect" flowering/fruited foxtail.
A Palm Sale will immediately follow the tour of the Rael's garden. Please bring your extra palms and cycads for the sale.
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At Montgomery, January 20



The Bluebird of Happiness or, possibly, the Spirit of Palms & Cycads, attends the handover of the CFPACS check to Dr. Larry Noblick at MBC. Larry is under the column of light; Neil Yorio, past prez and presenter of the check, is obscured.

Montgomery Botanical Center Revisited

By John Kennedy
Well, yes, it's still there and 70 palmpersons can attest to the fact that Montgomery Botanical Center (MBC) is even fuller of palms and cycads than when last visited in March, 1999. On January 20, CFPACS joined with members of the Palm Beach Palm & Cycad Soci-

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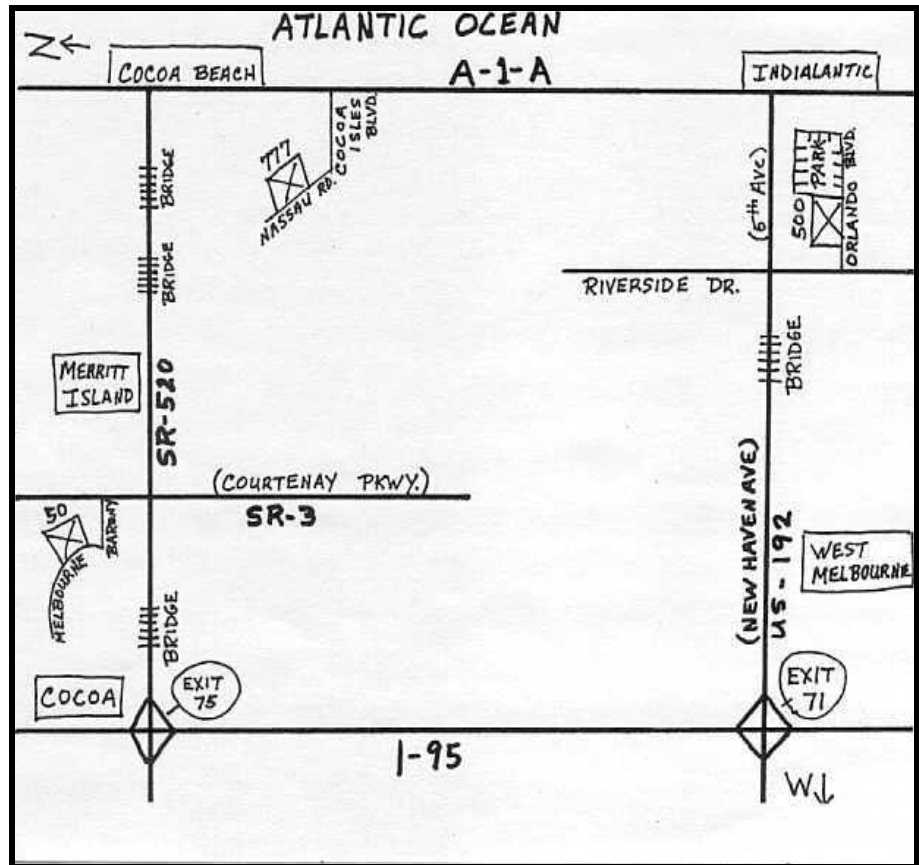
20-YEAR INDEX

Folded into this issue is a 20-year index listing all articles—by subject and by author—published in the Central Florida Palm & Cycad Society’s bulletin/newsletter from its original appearance in 1980.

Mike Dahme is the compiler of, what was for him, a labor of love. And, as one of the few people with a complete set of these issues, he found troublesome tracking down articles that he knew were in there, some-where.

What became apparent to him is how often the group visited the same collections/gardens and how frequently the same contributors appeared, again and again.

March Meeting : the Palmy Brevard Beaches



Yes, Dave Witt is Our Prez
 The Seedbank Coordinator, in his dual function as counter of ballots, announces (that David Edwin Witt, of Orlando, former Membership Chair, garden visitee, author of several freeze reports, has been elected President of the Central Florida Palm & Cycad Society.
 One member cast a write-in vote for Mickey Mouse, the most prominent citizen of Central Florida. This person might possibly have reasoned that with Mickey as our president, we would get to see the many palms planted artfully in Disney World.

Deadline for June Issue:
May 10

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Above is Scott Ward's house in Indialantic, from the street. You wouldn't know, from all the visible lawn area, that another one of Us has palms 'n' stuff inside? Scott's is the first garden to be visited on March 10th.

MBC Revisited

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ety to tour this remarkable place.

Obviously, Someone Above smiled on the day, which featured the first state-wide rain in weeks. The showers held off until the tour was over and visitors were eating their lunches in the staff break room or in their cars.

Dr. Larry Noblick led the group around for two hours, showing off several new plantings along the palm walk, including species of *Attalea*, *Scheelea*, and *Orbignyia*. So many new plantings of this *Attalea* species complex have been added that Dr. Noblick joked that the adjacent road could be called "Attalea Avenue."

The second half of the tour was given by Larry Shroyer, MBC's cycad expert. Several rare species of cycads have been added to the ever-expanding collection.

Neil Yorio, whose term as CFPACS president ended in December, presented Dr. Noblick with a check for \$1,687.84. This amount represented the second, and final, installment of CFPACS's funding for MBC's imaging program. Montgomery had requested \$4,787.84 for this purpose. CFPACS donated \$1,600 in July, 2000; the total from our chapter was, thus, \$3,287.84. The South Florida Palm Society contributed \$1,500 to underwrite the remaining balance.

March 10th Meeting

(Continued from page 1)

The Itinerary

9:00am - Board meeting at Scott Ward's
 10:00 - 11:00am Tour Scott's Garden
 11:30am -12:30pm Tour Bud Wideman's Garden
 12:30 - 1:30pm Lunch
 2:00pm Tour Steve and Cindy Rael's
 Palm Sale!

Directions

To Scott Ward's: Take 1-95 to Exit 71 (US 192) all the way to the beaches. Riverside Dr. is the first street you come to when you cross the Melbourne causeway to the beach. Go Right on Riverside Dr. to Orlando Blvd. Left to 500. Parking at Orlando Park.

To Bud Wideman's: Get back on Riverside Dr. and go back to 5th Ave (US 192) head East (right) toward the ocean to A-1-A. Go North (left) about 15 miles to Cocoa Beach. Once you get to Cocoa Beach, A-1-A will split into two one-way N/ S roads. When A-1-A comes back together be looking on the left for the Huntington Bank, which is near the corner of Cocoa Isles Blvd. Left on Cocoa Isles Blvd. to 777 Nassau.

To Steve and Cindy Rael's: Back to A-1-A, head North (left) about two miles (when you see Ron Jon surf shop get in the left lane) to turn on SR 520. Take 520 Five and one half miles to Courtenay Pkwy. Turn right (N) on Courtenay, go one mile (look for Goodyear Tire Store on corner of Courtenay and Barony). Turn left on Barony, to 50 Melbourne Ave.

Lunch

Lunch will be on your own at area restaurants. On A-1-A in Cocoa Beach there are a multitude of all the fast food places, including Shoney's and IHOP.

On SR 520 in Merritt Island are Applebees, Steak and Shake, Olive Garden, Red Lobster, and lots of fast food as well.

--Charlene Palm

[See map on top of opposite page.]

Tampa: Winter 2000/2001 in Review

By Ray Hernandez

Springtime is a plant and palm lover's favorite time of year. The sun angle is higher, the days longer and the temperatures much much warmer. It's a time when the *Bismarckias* start opening new fronds every three weeks and those barren oaks develop the bright green leaves signifying the not too distant arrival of summer. It can also a time of jubilation because that African Oil Palm you thought was obliterated by old man winter, pushes up a new green spear. Unfortunately, though, spring and summer seem to fly by and the cool nights of October arrive with a promise of more menacing times to follow. The chapter meeting in fall is full of chat about long-term weather predictions. You hear topics such as the effects of urban heat islands, El Niño, and global warming.

Most of the time there is a sense of unfounded optimism that the worst winters are behind us and maybe, just maybe, we'll all be zone 10 before long. I'm as guilty as the next palm lover, hell bent on discovering some new found wisdom that will enable me to grow that palm no one else in the area has succeeded with before. Over the last ten years or so however, old man winter has been on a long vacation and we've all gotten pretty lax and dare I say, overconfident?

There is within us a desire to push the envelope and grow what we know is too tender for our climate. It's the same desire that seems to manifest itself as a sort of defiance to mother nature.... "I'll grow this if it kills me" and we persist with a yard full of 3 foot tall Coconuts somewhere near Arcadia. All this being said, old man winter awoke from his sleep this year and has presented us with a seemingly endless "cool" winter. In many ways, this is worse than 1989, 1985, or 1983 where temps dropped into the low twenties and upper teens. It might sound funny, but outside those horrible cold outbreaks, each of those respective winters had many more days above 75F than we have had or will have this year. Either way, it's a time of year that makes us long for the arrival of spring. Now that I've come full circle, it's time to present my own frost/freeze experiences for 2000/2001 and what palms didn't fare so well.

The winter started with a trip to the Goodwill outlet store where I proceeded to buy as many \$4 and \$5 dollar sheets, blankets, and comforters as I could fit into my little Honda's trunk. The poor homeless people must have had a thing or two to say about me under their breath. This was followed by a trip to several grocery stores and appliance outlets where boxes of all

sizes abounded. Is the word obsessive entering any of your heads yet?

The Sub Tropic Of Cancer, as I call my own little piece of paradise, is located on Tampa's Interbay Peninsula. The temperatures in winter are moderated and, thus, a couple of degrees warmer than the official airport or downtown readings. Dr. Young's garden, less than two miles away, is another good indicator of what I can get away with. Water is situated 1 mile west, two miles east, and 4 miles south, making for a suitable microclimate to "try" a variety of tropical plants and palms. On a few occasions this winter, the beneficial microclimate gave me just the degree or two differences in temperature I needed to "win". After all, losing the battle but winning the war is what growing palms in central Florida is all about

Official minimums at the Sub Tropic Of Cancer, south Tampa, Florida:

December 20 – 35F very windy
 December 21 – 34F w/ light frost
 December 22 – 47F
 December 23 – 43F
 December 24 – 52F
 December 25 – 49F
 December 26 – 52F
 December 27 – 53F
 December 28 – 53F
 December 29 – 44F
 December 30 – 39F w/ light winds
 December 31 – 30F w/ light winds and 4 total hours in the 30-32 range
 January 1 – 32F w/ light frost
 January 2 – 42F
 January 3 – 36F w/ light winds
 January 4 – 34F w/ light winds
 January 5 – 32F w/ heavy frost
 January 21 – 34F w/ light winds

Damage report

1. **Roystonea regia** – Two juvenile specimens with about 4 and 5 foot of trunk respectively, planted at opposite ends of the property. There is no question here that these suffer damage below freezing and complete protection is virtually impossible. Still, two large refrigerator boxes were pushed up over the majority of the canopy, closing together the

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Tampa: Winter 2000/2001

(Continued from page 4)

- fronds as they rose. The outward force exerted by the fronds in a desire to be “freed”, keep the box in place. Blankets are wrapped around the crown and trunk, completing the very picturesque sight. The end result is damage limited to those unprotected ends not enclosed by the box.
2. **Copernicia berteriana** – As a member of my favorite genus, no amount of protection is enough. A sheet is thrown over this sapling with a box over that to boot. Still, cold damage is visible on the oldest leaves of the canopy. All emerging leaves seem healthy and green but a copper rinse is a necessary precaution.
 3. **Thrinax radiata** – As the less cold tolerant of the two native *Thrinax*, this 4 foot tall sapling required the sheet and box treatment applied to the *Copernicia*. The results are much the same with the lower canopy taking a hit but all newer leaves and emerging spears green and healthy.
 4. **Dypsis decaryi** – This palm is somewhat frost tolerant and this winter backs up all prior evidence. My 12 foot tall juvenile was engulfed in frost on three different occasions, and has one newer leaf tip partially fried to show for it. Those are pretty good results by anyone’s standards.
 5. **Pritchardia thurstonii** – Why do I even own this thing? It looked beautiful as recently as two months ago and as a potted specimen, has been garaged at temps below 38F. The extra protection hasn’t really made a difference as cold spotting has rendered every frond but the new one unsightly.
 6. **Hyophorbe lagenicaulis** – Another victim of damage due to consistently cool nights with temperatures **above** freezing. This 4 foot potted juvenile was a garage dweller during the entire week December 30 and January 6. Despite the extra protection, cold spotting still prevailed on the older leaves of the canopy. This palm becomes unsightly quickly with a canopy of no more than 4, 5, or 6 fronds at any given time of year.
 7. **Hyophorbe verschaffeltii** – While being more cold hardy than its brethren, younger plants react adversely to cool weather. My larger 6-foot specimen didn’t even flinch at the effects of this winter but the younger 4 footer shows spotting on the older leaves. No problem here since this palm replaces old foliage faster than its cousin.
 8. **Cocos nucifera** – Pity the fool who tries to grow a Coconut seedling outside a greenhouse during winter in most areas of central Florida. I equate it to a slow painful death that one has to sit and watch helplessly. I’m even tempted at times to put it out of its misery and plunk down \$14.00 at Home Depot for its replacement. I must be a glutton for punishment.
 9. **Chamaedorea microspadix** – What?? How did this cold hardy plant make the list?? Here’s a perfect example of the difference between cold hardiness and frost tolerance. Very few palms possess the latter and this is one such palm that does not. This palm is planted amongst an azalea hedge and the lower clump protected by those hedges is green and healthy. The more exposed and oldest stem, however, possesses browned tip leaves and an overall unsightly appearance.
 10. **Dictyosperma album Var. rubrum** – Another huge potted specimen that will not fit inside the warmer confines of the garage. Here’s one that takes full advantage of the multitude of sheets, blankets, and comforters that would otherwise be under an overpass somewhere in south St Petersburg. I laid the 25-gallon container on its side and draped about four blankets/comforters over the canopy, trunk, and container. The cold damage was limited to tip burn on the oldest leaves in contact with the blanket.
 11. **Licuala grandis** – Another weeklong inhabitant of the garage. Put simply, this palm and probably many others in the genus will not tolerate the slightest cool conditions without showing the ill effects. Spotting has become prevalent on new and old foliage alike, as the nutrients cannot be pulled up from the soil.
- Others showing even slight cold damage:**
Dypsis lutescens
Licuala spinosa
Pritchardia pacifica
Copernicia cowellii (seedling)
Pseudophoenix sargentii ssp. *saone* Var. *navassana* (seedlings)

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Left, a regular ordinary royal palm, the *Roystonea regia* seen everywhere in South Florida. Here, however, it's blooming in an unexpectedly congenial locale, Cypress Gardens in Winter Haven—deep in the interior of Central Florida. Ed Carlson took this picture on Christmas Day and wonders why he can't grow royals in supposedly warmer, even more congenial and coastal Vero Beach. Of course, Ed, we don't exactly know whether there will be any fruit since some rather nastier weather arrived only a few days later.

Tampa: Winter 2000/2001

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Tropical Palms with No Damage:

Copernicia curtissii, *baileyana*, *hospita*, *macroglossa*, *rigida* (2)
Thrinax morrisii
Coccothrinax argentata, *borbidiana*, *crinita*
Chamaedorea radicalis, *elegans*, *metallica*, *cataractarum*
Hyphaene coriacea (2)
Livistona decipiens, *chinensis*, *saribus* (red and green petiole forms)
Sabal mauritiiiformis, *yapa*
Arenga tremula
Pseudophoenix sargentii
Attalea butyracea
Bismarckia nobilis
Allagoptera arenaria (2)
Archontophoenix cunninghamiana ssp. *illavara*



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***Arenga pinnata*, *A. engleri* Bloom in New Smyrna Beach**

By Frank Radosta

In 1980 I received seeds of *Arenga pinnata* from the Palm Society seed bank. The source of the seeds was the Philippines. Germination took about 6 months. By 1983, the plant, which is currently flowering, was in a 4-gallon pot and was planted in the ground. In December 2000, I noticed that it was beginning to flower. In this particular case, it took about 20 years from germination to flowering which, of course, means the eventual death of this palm.

This palm, even from a relatively small size, has survived the hard freezes of the 1980s with no special protection. For instance, my records indicate that in the winter of 1983-84 it lost all of its foliage and showed no signs of life until May, 1984. The following winter it again lost all of its foliage and showed no signs of life until March, 1985. The same thing happened again the following winter. It may have occurred again in later winters, but my records stop there.

Arenga pinnata certainly appears to be a survivor for Central Florida.

In 1985, I purchased some 1-gallon size *Arenga engleri* from Hersh Womble at a Palm Society sale. I believe that he obtained the seeds from Dave Besst's tree. They were planted in the ground about 5 months later. One of the trunks has now flowered and fruited. I don't recall the exact date of flowering, but I was harvesting fruit in July, 2000. The fruit were about the size of a small cherry tomato. They gradually changed color from green to yellow to reddish. Each fruit contained three seeds. There were less than 100 seeds total. McCurrach's *Palms of the World* states that the juice of the outer covering of the fruit of *A. pinnata* is highly corrosive and may cause great pain and inflammation of the skin. Hence, I used rubber gloves in handling the fruit, assuming that *A. engleri* fruit was of a similar nature. In the case of *A. engleri*, only the trunk which has flowered will die. The plant will remain alive through the many suckers.

Frank's name was accidentally omitted from the Volusia County roster list.



Chamaedorea metallica, pollinated by the Charlene Palm method. (Does Heloise know about this?)

Pollinating *Chamaedorea metallica* using Scotch tape

By Charlene Palm

I bought a pot with six *Chamaedorea metallica* seedlings in it at a palm sale many years ago. As I discovered a few years later, I was lucky to have gotten three males and three females. They are now about 8 to 9 years old and range in size from 2 ft 6 in to 5 ft tall, with the females being much taller than the males; the tallest male is only 3 ft, the females 4 ft, 4 ft 6 in, and 5 ft. They have been mature and flowering for about four years now.

I had lots of inflorescences every year, but never any seed. After reading Hodel's *Chamaedorea Palms* I've learned that some *Chamaedorea* do not readily set seed in cultivation. This, according to Hodel, is due to their dioecious nature, some species having sticky type pollen and being away from their natural pollinators. The fact that my males were much shorter, even though they were in the same pot as my females, most likely contributed to my lack of seeds.

The male inflorescence is divided and has 7 or more branches (rachillae); the female inflorescence is one single spike. The flowers of both are a purplish brown color when immature, then suddenly turn bright orange when mature and are very sweet smelling. When both

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Geoff & Bonnie Do Florida (Central & South)

By John Kennedy

Geoff and Bonnie Stein, currently co-editors of the Southern California Palm Society's prestigious magazine, *The Palm Journal*, visited Florida in the last two weeks of January. Determined, it seems, to see Florida at its chilliest (though mosquito-less, to Geoff's apparent relief), they accompanied the group to Montgomery on January 20th, the last nice (warm?) day for the next two weeks.

The Seedbank Coordinator, whose houseguests they were, took them to see every palm in Brevard County before turning southward for even more palms. In Brevard, Geoff and Bonnie toured, among others, Jerry Hooper's, Joe Alf's, Charlene Palm's, Neil Yorio's, as well as their host's 8 acres. Just a short drive down I-95 got them to Norm Moody's jungle in West Palm Beach, after a visit to Ed Carlson's in Vero Beach Aerodrome.

A day later, the Steins got to look at the wondrous palms at Joe and Anne Michael's. However cold and windy, conditions did not quite match the time CFPACS went to the Michaels' when the area was under a tornado watch.

From Wabasso, it's just a hop and a jump to the Edi-

tor's garden where the Californians tramped through his extensive collection of native and exotic weeds. With a wind blowing at 24 mph, with higher gusts, and temps around 50 under completely overcast skies, they looked at almost everything. Geoff was even kind enough to note a non-palm, a *Tabebuia umbellate*, as being unlike those in California.

Here, it was possible to see—in action—the Steins' teamwork, noted by others whom they visited.

Geoff, with the camera, called out to his assistant (Bonnie) the name of the palm whose picture was being taken. She, with notebook and poised pencil, wrote it down.

As the wind picked up, the Seedbank Coordinator roared off in a cloud of dust (unpaved, unraind-on street) for further palm sightings. When the Editor commented that the Steins must be tired of looking at all those palms, their host explained, proudly, "Geoff's hardcore." And Bonnie must be tougher than she looks. (Their driver was, for the record, wearing *long* pants and *shoes*—though without socks—in tribute to the day.)

The next stop was a pilgrimage to the *Livistona ben-*

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Above, Geoff and Bonnie Stein tour Leu Gardens in Orlando with Eric Schmidt, left. In case you're wondering, that's a camera in Jerry Hooper's hand.

Below, Norm Moody (left) shows off his Caryota yes to Geoff and Bonnie.. These pictures illustrate the photographer's willingness to record historic happenings in warm weather, unlike what later followed.



Geoff & Bonnie

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thamii discovered by Janice Broda at the Florida Medical Entomology Lab in Vero—on a finger pushing out into the Indian River lagoon, a lovely spot on a warm, sunny, windless day.

Leaving unlovely Florida, the Steins headed home to Thousand Oaks, the California power crisis, and a huge winter storm. Their visit was caught for posterity by a local photographer, who takes pictures only on warm days. (Geoff is the stocky one with the beard.) “Bob,” the hapless palm collector in many Geoff Stein cartoons may well be expected to visit Florida in future adventures. As for the Steins, having broken them in, we invite them to return for hurricane season.

It was still warm when the Californians visited Neil Yorio. The intrepid investigator is Geoff. Under the hat, Bonnie waits to record captions for pictures to be taken very shortly. Rumor bath it that at least 25 rolls of film were used. That's Jerry Hooper with the backpack.



Chamaedorea metallica

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male and female flowers have turned *bright orange* at the same time, they are ready for pollination.

I started with the paint brush method. I took a small paint brush and dabbed the mature male stamen, then dabbed the receptive female pistil. I soon found out this was very tedious, as I really couldn't see any pollen on the brush and couldn't remember which flowers were done and which were not. I abandoned this method after pollinating only one female spike.

I then began to experiment with another method. I cut off one individual branch (there are many in a group, on every male inflorescence, held together by the peduncle) and wrapped it around the female spike and taped them together. The cut male branch will shrivel and die after one day, so you must replace it each morning by cutting off another branch and taping it on. Continue to do this for about 3 days or until the female is past her prime. Then wait until the next set of maturing male and female flowers are ready, and start the process all over again.

It's best to have several male and female plants, this increases your odds of having both with mature flowers at the same time.

The results were surprising: the Scotch tape method worked just as well as the paint brush method. It was faster and easier, despite having to retape them every morning. Many of the female spikes are loaded with seeds, 40 to 50 per spike, some of the later spikes have only a few seeds as the males finished flowering before the females.

Unless they share our opinions, we seldom find people sensible.

—LaRochefoucauld, Maxim #347

ST. PETE GREEN THUMB FESTIVAL

By Rick Nale

I had the pleasure of speaking to several of you last year with regard to establishing a venue to sell palms and cycads in the West Coast area.

The Green Thumb Festival is an exciting festival that has been established for many years on the West Coast an attendance records last year of at least 13,000 people. This is an annual event held on April 28th and 29th.

I have attended several other palm and cycad sales throughout Florida and have been impressed by the

knowledge and friendliness of vendors and Palmtuts.

I would welcome the opportunity to bring this special event to the West Coast of Florida.

I have been able to convince Mary Campbell, Director of the St. Petersburg Park Department, to generously donate up to three (3) 12 x 12 spots at this year's festival. These spots normally cost \$85.00 each.

We would ask a minimum donation of 10% of sales for the Gizella Kopsick Palm Arboretum. Please contact Rick Nale at (727) 321-7998.

COLD HARDINESS REPORT FROM ORLANDO

By Dave Witt

A report from my garden in suburban southwest Orange County located away from any possible protective microclimates. An unprecedented continuous cold wave had gripped the entire central Florida region. During a three-week period in Orlando (roughly 12/20 – 1/12) the highs never reached 60F, and the vast majority of each morning's lows were recorded in the 30's with several in the low 40's. In the same span a total of six mornings at/below the freezing point (32f) degrees were noted, details below.

12/20/00: 26F low, advective cold w/ no frost, temp remained below freezing for 7 hours, including over 3 hrs PAST SUNRISE.

12/30/00: 27F low, advective cold w/ no frost, below freezing for approximately 7 hours

12/31/00: 29F low, radiational cold w/ moderate frost in the open, none under canopy; below freezing for approximately 7 hours

1/5/01: 28F low, radiational cold w/ very heavy frost in open areas, some frost under canopies as well; below freezing for approximately 3 hours.

1/7/01: 29F low, radiational cold w/ heavy frost in open areas, light under canopies; approximately 5 hours below freezing

1/10/01: 32F low, light frost in open areas, below freezing for 2 hours

*** None of the palms listed were covered or protected in any way.

DEAD

Heterospatha elata (small sdlg. under 2 ft. overall)

Livistona speciosa (small sdlg. w/ first 4 leaves)

Oncosperma tigillarum (small sdlg. w/ first 6 leaves)

DEFOLIATED

Hyophorbe verschaffeltii (10') in open

Elaeis guineensis (10') in open

Roystonea regia = *elata* (11') in open

Arenga pinnata (6') under oak canopy

Corypha utan (8') in open, but hung in longer than it normally has in the past

Attalea butyracea (2'): some green left on newest frond only

Veitchia nini (7') new spear has already opened
Bismarckia nobilis (5') other specimens (17 ft. & 12 ft. overall) including over 30 potted seedlings from 1-leaf citrus liners to 3-gallon palms all survived intact; some tip burn occurred on several of them but NO losses.

MAJOR FOLIAR DAMAGE (over 50% - but not defoliation)

Caryota mitis (15') damage confined to uppermost foliage only

Hyphaene coriacea (7') many undamaged fronds

Wodyetia bifurcata (10') some green left near the stem/petioles, about 2/3 of canopy damaged, the best it has ever performed

Thrinax parviflora (3') about 80-90% damaged

T. radiata (2') about 50% damaged

Syagrus amara (8') all fronds damaged about 75%

S. sancona (9') damage to several fronds, some are o.k.

S.X "costae" hybrid (12') damage to foliage over rooftop only

S. coronata (4') each frond showing over 50% damage

Dypsis decaryi (16') canopy is about 75% damaged

Gaussia maya (6') frost damage to uppermost two fronds

Arenga caudata (5') heavy spotting & some wilting on most all fronds

MINOR DAMAGE (mainly some spotting and wilting on some but not all fronds)

Pseudophoenix sargentii (6') in open

Archontophoenix maxima (9') in open

Syagrus picrophylla (2') partially shaded by citrus

S. botryophora (7') new planting, partially shaded by oak

Ravenea rivularis (8') in open next to west wall, easily the best it has ever performed

Chamaedorea stolonifera (3') under roof edge next to east wall

Coccothrinax argentata (3.5') possible hybrid, in the open

Phoenix rupicola (6') browning on several fronds

Areca triandra (5') cold damage to most upper fronds on all stems

Zombia antillarum (1') spotting on a few fronds

Beccariophoenix madagascariensis (9') tip burn on 2 fronds

Sabal mauritiformis (10') tip burn on 2 fronds

NOTABLE UNDAMAGED PALMS

SW corner under laurel oak canopy

Archontophoenix alexandrae - 7 ft.

Livistona fulva - 2 ft., partially shaded

(Continued on page 11)

Orlando Cold Hardiness

(Continued from page 10)

Euterpe edulis - 8 ft.

Chamaedorea glaucifolia - 2.5 ft.

West side in open full sun

Copernicia alba - 4 ft.

Livistona nitida - 1.5 ft.

Gastrococos crista - 1 ft.

Dypsis decipiens - 1.5 ft.

Copernicia prunifera - 6 ft.

Phoenix loureirii var. *humilis* - 3 ft.

NW side partial shade from citrus

Borassus aethiopum - 1.5 ft.

Coccothrinax borbidiana - 1 ft.

Coccothrinax inaguensis - 2.5 ft., partially shaded

Acrocomia aculeata - 2 ft.

Kerriodoxa elegans - 1.5 ft. shaded completely by citrus

Ravenea xerophila - 1.5 ft.

Livistona victoriae - sdlg., first 5 leaves

Wallichia densiflora - sdlg., first 5 leaves, shaded by citrus

Trachycarpus latisectus - 1 ft., shaded by citrus

North side - conditions noted

Livistona jenkinsiana - 1 ft. shaded

Caryota himalayana - 1.5 ft. shaded

Guhaia argyrata - 2 ft. shaded

Syagrus vagans - 1 ft. mostly full sun

Attalea humilis - 4-leaf sdlg., mostly shaded

Allagoptera arenaria - mature 4 ft., open full sun

East side in open full sun unless noted

Coccothrinax crinita - 1 ft.

Thrinax morrisii - 5.5 ft.

Coccothrinax miraguma - 1 ft. shaded under a *Philodendron selloum*

Coccothrinax argentata - 4.5 ft.

Geonoma schottiana - 1 ft.

Chuniophoenix nana - sdlg. first 4 leaves

Chuniophoenix hainanensis - sdlg. first 5 leaves

Brabea brandegeei - 3 ft.

Tritrinax campestris - 1 ft.

Copernicia macroglossa - 1ft.

Copernicia yarey - 1 ft.

Copernicia gigas - 1 ft.

Livistona rigida - 7 ft.

Sabal yapa - 3.5 ft.

Borassus aethiopum - 1 ft.



'Mysterious Mystery Palm' Unmasked?

An e-mail from Jody Haynes, the PACSOF webmaster, identifies the unknown palm in Vero Beach that has stumped local palmophiles. Pictures of the palm appeared in the December issue of *The Palmeteer*.

"I wanted to write and tell you that the "mysterious mystery palm" on page 18 of the December 2000 *The Palmeteer*' is a *Veitchia* species, probably *V. joannis*. The black tomentum on the crownshaft at the base of each petiole is certainly distinctive of *Veitchia*, whereas the drooping, lanceolate leaflets and swollen trunk base suggest *V. joannis*. I cannot tell if the two smaller plants are the same species, but I can say that the photo shows a multiple specimen of solitary palms, rather

(Continued on page 12)

South side in full sun unless noted

Livistona mariae - 7.5 ft.

Tritrinax brasiliensis - 2.5 ft.

Copernicia baileyana - 1.5 ft.

Copernicia glabrescens - 1 ft.

Cryosophila stauracantha - 2 ft., shaded under a *Phoenix reclinata*

Schippia concolor - 3 ft. mostly shaded under a

Coccothrinax jamaicensis - 4 ft.

Medemia argun - 1.5 ft.

Thrinax morrisii - 6.5 ft.

Licuala spinosa - 4 ft. shaded under the tallest

Thrinax excelsa - 1.5 ft., partially shaded under the *Elaeis* palm

Bismarckia nobilis - 17 ft. and 12 ft.

Errata!

The following CFPACS members were accidentally omitted from the membership roster included with the December, 2000, issue of *The Palmeteer*. The Editor offers his apologies to those omitted, long-time members, Dave and Marian Besst, and our hosts for the September meeting, Richard and Linda Lundstedt, as well as Jerry Hooper's dentist, Charles Barger. Please add their names to your copy of the roster. The membership roster is kept on an Excel spreadsheet; the complete information about any one member does not appear on the screen at the same time, but requires considerable scrolling across in order to see it all. The Editor, in compiling the roster for publication, transcribed (pen and pad) the information on each member. Then this was transcribed from the pages of the pad on which "everything" had been painstakingly written out. The inadvertent omissions occurred at that point. A current, up-to-date membership roster is held by the Membership Chair, Mark Van Antwerp, with additional copies to the President (Dave Witt) and the Editor (John Kennedy).

Frank Radosta's name was omitted from the list of members in Volusia County. Any other mistakes should be reported to the Editor, changes in address, etc., to the Membership Chair, Mark Van Antwerp. See officer list on page 30 for postal and e-mail addresses.

Barger, Charles

350 Rita Blvd.
Melbourne Beach, FL 32951
(321) 724-4726
(Brevard)

Besst, Mr. & Mrs. David

1810 Huron Trail
Maitland, FL 32751
(407) 629-6830
dbesst@cfl.rr.com
(Orange)

Lundstedt, Richard & Linda

3370 Hield Rd.
West Melbourne, FL 32904
(321) 727-1910
(Brevard)

The picture of *Drymophloeus beguinii* in the December issue has been correctly identified by Scott Zona as *Brassiophoenix*, but which species he is unable to say. He notes that *D. beguinii* has now become *D. litigiousus*. Many doubtful issues may be rectified, he thinks, with the publication of the second edition of *Genera Palmarum*, which John Dransfield and Natalie Uhl are now working on.

Mystery Palm

(Continued from page 11)

than a clumping species. This palm is a relatively uncommon *Veitchia* here in Miami-Dade County, since many palms thought to be *V. joannis* are actually *V. arecina* or *V. nini*. Now, if this palm grows large enough to produce an infructescence, you will certainly be able to identify it as a *Veitchia* by the large, red fruit. Hope this helps."

[Those looking at the palm in question thought that it was a clumping species, that the small plants at its base were not individuals.—Editor]

Neil Yorio believes the palm to be a bi-generic hybrid of *Wodyetia* and *Veitchia*, and says he has one. In any event, the palm—while looking wan—was not really damaged in the recent cold weather.

What causes the discrepancy between the gratitude we receive and that which we expect is that pride of the giver and the pride of the taker cannot agree as to the value of the gift.

—La Rochefoucauld, Maxim #225

Oh, This Immoderate Weather—and the Island of No Freezes?

By Mike Merritt
The Weather

Perhaps the reader will recall that in the movie “Patton”, the great general orders a chaplain to prepare a prayer to deal with the inclement weather that is preventing his troops from advancing. According to the film, the general prays “to restrain this immoderate weather with which we have had to contend.” This 2000-2001 winter (not even over yet) has been a particularly rough one for palm and cycad hobbyists in central Florida. There are some surprising aspects to this weather regime – once again, nature confronts us with a set of circumstances unlike those that have previously occurred.

Hobbyists have long dreaded a recurrence of the Christmas freeze of 1989, when an otherwise mild winter was punctuated by a 2-3 day period in which an Arctic blast lowered temperatures into the upper teens in central Florida and into the mid 20’s in south Florida.

In a normal winter, we would expect one or two days with sub-freezing temperatures in the low thirties or high twenties followed by a relatively rapid warm up. The 2000-2001 season, however, was marked by a series of cold blasts separated by periods of lower-than-average temperatures, but none were of abnormal severity as in 1989. However, the sub-freezing temperature events were of many hours duration and, in some locations, the cold weather was aggravated by the severe regional drought, which has been called a 200-year event.

Because my 5-acre lot is on ground of uneven elevation, cold air tends to settle in the lower areas. In normal times, the lower areas are surrounded by a lake that tends to moderate the lower temperatures. Systematic measurements in the 1999-2000 winter with my network of digital thermographs indicated maximum temperature differences of 2.0-2.5 Df (Degrees Fahrenheit). But because of the drought, the lake is dry, and recorded temperature differences in the 2000-2001 season have been as great as 7 Df.

The four coldest mornings were December 20, December 31-January 1, and January 5. In the area of relatively high elevation with oak and pine canopy near buildings, sub-freezing temperatures only occurred on the four stated days: 30-31 Df, 29 Df, 29 Df, and 29 Df and frost was minimal. In low areas closer to the dry lake, heavy frost occurred, the four-day temperatures were 26 Df, 22-23 Df, 23-24 Df, and 21-23 Df,

and there were 15 days below freezing.

In the high, canopied area, plants surviving in relatively good shape with protection from cardboard boxes and plastic-wrapped fencing enclosures include *Beccariophoenix madagascariensis*, one with a 5 ft spread and one with a 3.5 ft spread. Thankfully, I will have these magnificent plants in my yard for a while longer. A 1-ft *Licuala* “elegans” (*peltata*, var. *sumawonga*), also covered, emerged without a mark on it, while a covered *Licuala grandis* a few feet away was partly defoliated. Covered, and under heavy canopy, another small *L. grandis* and a *L. lauterbachii* were unscathed, and *Kerriodoxa elegans* emerged with only two shriveled leaves. Under heavy canopy and uncovered, *Arenga tremula* (sold to me as) only lost older leaves. *A. engleri*, a 6 ft plant, uncovered under light canopy, was completely unscathed. *Archontophoenix cunninghamiana*, 6 ft high and under medium canopy near the house, kept two of its major fronds. Of four *Wodyetia bifurcata*, 3-8 ft tall, all had complete leaflet burn after the first freeze. Because some of the spears also appear damaged, their survival is problematical. All cycads were fine, except *Zamia furfuracea/maritima*.

In an open area of lower temperatures (four day temperatures were 28 Df, 25 Df, 26 Df, and 25Df, and there were 10 days below freezing), four *Borassus aethiopicus* ranging in size from a tube projected from a ground-sown seed to a specimen with 1-ft diameter leaves were protected with styrofoam containers or heavy cardboard boxes used for computer monitors or other electronic devices (the best kind of boxes). All were completely unscathed, as was a similarly protected small (1.5-ft spread) *Corypha umbraculifera*. In the same area, four 8-10 ft unprotected *Syagrus rozmanoffianum* were defoliated except for the bases of emerging leaves. Other “queen palms” in my neighborhood, both larger and smaller, some in similar open areas, were largely undamaged. I purchased my queen palms in Miami – perhaps they just had thin blood. Of four unprotected silver *Bismarkias* ranging from 3 to 6 ft in height, the largest and smallest were completely defoliated. The others have the two or three newest leaves still alive, but streaked with areas of damaged tissue. Two *Phoenix* “reclinata” (Florida hybrids?) were completely defoliated, but *P. canariensis* and *sybvestris* are fine, as is *Butia capitata*. Four 3-4 ft *Ravenea rivularis* (“majesty palms”) all turned white after the first freeze, as did *Arenga australasica*, but *Chamaerops humilis* looked

(Continued on page 14)

Immoderate Weather

(Continued from page 13)

happy for the first time since I've had it.

In my back yard, temperatures as in the previous paragraph, the notable survivors, all covered, were *Pseudophoenix sargentii*, *Dyopsis decipiens*, and *Phoenix acanthis*, the latter having a few burnt leaf tips. *Dioon edule* was fine, but a small, covered *Coccothrinax borhidiana* suffered substantial leaf burn. Finally, in my lowest area next to the dry lake, were *Acoelorrhaphe wrightii* (paurotis) with a 5-ft spread, and two small *Livistona saribus* and a small *Livistona chinensis*. Temperatures here were probably 2 Df lower than those previously cited for my coldest area, based on a spot check one frigid morning – I kept no thermographs here on a regular basis. Given the absolutely brutal temperatures in this area, it is not surprising that all were damaged, the paurotis and one *saribus* mostly defoliated, the other *saribus* and the *chinensis* keeping two or three green leaves showing some necrotic areas around the hastulas. However, all look like good candidates for survival, impressive testimony to the hardiness of these species.

In the foregoing discussion, I have focused on survivors, commonly-sold species, and the damaged sustained by relatively hardy species experiencing abnormally severe conditions. Other plants of tender species were damaged, but a description would provide little new information for the reader. Some of the latter were protected and look like good candidates for survival; others, well, only time will tell. I have both a copper fungicide and Daconil available to battle fungal and bacterial attacks, but the first becomes toxic if used too much, and the second is said to lose its potency a few hours after mixing. Ironically, the best medicine might be a continuation of the dry weather.

Pine Island

The reader might remember another old movie, "Lost Horizon". In the film, the diplomat hero is discouraged after helping people escape the violence and disorder of a political upheaval. Then, in a remote corner of the Himalayas, a High Lama shows him a place free of disorder, where all things (presumably even including the weather) occurred only in moderation. Shangri-La, in the words of the film, was "a place where there was peace and security, where living" (and presumably also palm growing) "was not a struggle but a lasting delight."

After the freezes, I was approached, not by a High Lama, but by CFPACS Seedbank Coordinator Mike Dahme, who told me of a place not far away where the

winter temperatures were rumored to always be moderate and palm growing would require less struggle. This was Pine Island, on the west coast of Florida, bordered on both sides by natural waterways, Matlacha Pass on the east and Pine Island Sound on the west. Further to the east are Cape Coral and Ft. Myers, and to the west and south are Captiva and Sanibel Islands. To the north is the Charlotte Harbor estuary. On January 11-12, after receiving some advice and information from Southwestern Florida Chapter member Geri Prall, I drove over to investigate.

Results of my trip were quite interesting, though not all questions were completely answered. All of my time was spent on the northern half of the island, said to be warmer than the southern half, though I haven't seen any temperature data to prove it. The Pine Island nursery people say they have been having a "bad winter". There have been three frosts/freezes (I find that they don't distinguish clearly between the two), most likely two frosts and a short borderline freeze. Low temperature estimates for the latter range from 27 to 37 (I didn't meet anyone who kept careful records). One of the big nurseries, Soaring Eagle Nursery, mobilized their fleet of 5-6 helicopters and their wind machines during the last freeze (frost?) to blow away the frost, which they have done before, apparently with some success.

One nurseryman (McGowns Nursery) talked about the frosts(?) of 1989 and 1993, and the really bad freeze (or maybe it was a frost) of 1997 that lasted 10 hours, but which occurred only in the Pineland. The Pineland section of the north part of the island is high ground in the center and somewhat east, where prevailing temperatures tend to be slightly lower than those in the northern and eastern lowland areas. In this area, I could see minor frost damage, mainly affecting such things as small coconuts and sea grapes growing in the open. Larger coconuts and anything with any canopy were fine. I saw rows of field grown foxtails (*Wodyetia bifurcata*) that were undamaged. There are numerous healthy mature coconuts, royals, arecas (*Dyopsis lutescens*), and solitaires (*Ptychosperma?*, *Veitchia?*), so evidently they don't experience serious difficulty in raising common tropicals there despite an occasional frost. I didn't see any evidence of anyone growing any other tropical palms other than these standard nursery items except for the large *Latania* outside the main office of PalmCo nursery. Other tropical plants such as umbrella trees, aralia, and mangos looked quite happy there, even in the Pineland. I didn't see any signs of frost in the northern or western lowlands, like around Bokeelia.

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Immoderate Weather

(Continued from page 14)

Houses in the higher Pineland can be built directly on the ground without an elevated pad or stilts. This is an area with both high-priced and moderately-priced homes and mature pine trees, a nice looking area. Other lower parts of the island that haven't been cleared have dense stands of melaleuca ("Melaleuca Island"?), and the dirt road access is suited only for tanks or 4-wheel drive vehicles. The entire Cape Coral area is developing rapidly, and development on Pine Island is beginning to accelerate, though house and land prices are still quite "moderate" in comparison to more highly developed areas, such as southeast Florida.

When I drove down Burnt Store Rd. (on the mainland north of Cape Coral), there were numerous badly burnt or killed tropicals. Later, I drove down into Cape Coral along the western shore of the Caloosahatchee River. There, and in downtown Ft. Myers near the river, there were numerous tropical plants showing no stress whatever. Ft. Myers' temperature data comes from Page Airport. From a minimum temperature map of the January 1999 freeze prepared by the Southeast Regional Climate Center, it appears that there is an area to the west and southwest of Page Airport, including the southern parts of Ft. Myers and Cape Coral and all of Pine Island and the barrier islands, that stays warmer than the airport area. Geri Prall, who lives in southern Cape Coral, reports recent foliar damage to a *Pritchardia pacifica* and bottle palms in the open, some also to Maypans and *Dyopsis cabadae*. Inland areas of Lee and Collier Counties, such as the Golden Gate Estates area, tend to be much cooler than Ft. Myers, only slightly warmer than central Florida.

My trip to Pine Island didn't provide perfectly clear and scientifically unambiguous answers to the temperature question, but I think it's clear that the area is at least Zone 10a and was superior to central Florida as an environment for tropical palms this winter. I have been encouraged by other CFPACS members to write of my observations of Pine Island so that this information might be provided to younger CFPACS members who are just beginning to plan their dream gardens. I am sure that others share my vision of palm growing that is a source of lasting delight.

[Mike Merritt, our able treasurer, gardens in Geneva, Seminole County, about 20 miles northeast of Orlando.—Editor]



Attalea speciosa and seed in the original discard pot. The middle palm is actually the first two palms. The seedling to the left is the third palm and the seedling to the far right is the fourth palm (note the umbilical-like cord running from the seed to the fourth palm).

The "Staggering" Germination of *Attalea speciosa*

By Dave Witt

CFPACS members Mike Dahme and Ed Brown returned from one of their South American adventures with some seed from various *Attalea* species commonly referred to as South American Oil Palms. I didn't see the fruit but was given one seed of *Attalea speciosa* and one seed of *A. phalerata* in the summer of '97. The former's size is worth noting, approximately 3" by 1.75", the biggest seed I've ever tried to germinate outside of *Borassus*. After about 12-15 months it had yet to sprout so I tossed it into the "discard pile" which at that time was a 5 gal pot full of old potting soil, sand, etc. In November '98 I noticed two tiny eophylls poking out of the top of the aforementioned discard pot. One belonged to the *A. speciosa* seed, the other to *A. phalerata* (which I had also discarded), something I've now learned to never do again. The *speciosa* seed had actually sprouted into 2 separate palms. I removed the *phalerata* seed & seedling into it's own 3-gallon pot, and left the *speciosa* seed intact w/ its 2 seedlings. About 6 months later (summer '99) a 3rd palm sprouted from the same seed! Almost another year after the 3rd palm (and about 18 months after the first 2 palms) a 4th palm sprouted, again from this same seed. Feeling a little like Jack (of the beanstalk fable) I was beginning to think that this was some sort of magical seed. I've since learned that this is a somewhat common trait for *Attalea* seed left to its own devices in habitat. Lesson learned: always keep some soil in your discard pile, better yet – keep your *Attalea* seed out of any discard piles...

Friend of Fronds: Palm Lover's Passion Still Grows

(This article was published in the Lake County edition of the Orlando Sentinel on Sept. 11, 2000. It is reprinted here, with the original headline, by permission. And, of course, CFPACS's September meeting was held two weeks later at the Wombles'.)

By April Hunt

MASCOTTE—**Hershell Womble** knows just how much of a jungle it is out there.

He should. He created it.

His 10-acre homestead on aptly named Ag Road is a lush, verdant tribute to palms and cycads, the tropical shrubs that tend to hunker below the trees that are a universal symbol for paradise and victory.

Womble and his wife, Jackie, have cultivated 40 types of palms and 20 cycad species in their carefully landscaped gardens that also include orchids, ginger, azaleas and at least one towering banana tree.

"I used to see this little school kid walking every morning, and one time he was early and told me, 'Mister, I sure like your jungle,'" said Womble, still delighted at the description. "He's right. The whole plant world is just so neat."

Passion for palms was not in the

cards for Womble when he was born in L. A.—Lower Alabama—70 years ago to a poor country family. He did pick up an interest in plants from his mother, who had a small garden, but his life was mostly about work. **First, he** enlisted in the Navy. Then he moved to Winter Park when a military buddy advised him that Martin Marietta was setting up shop in Central Florida.

Womble's 35-year career as an electrical engineer was spent with that company.

At some point, though, he worried about job security. He started a successful copying business as a backup but was heartbroken when his son Lee told him, "Dad, all you do is work."

That was it for the copying business. Still he wanted a backup plan and yearned to return to the country.

He discovered the Mascotte property when a friend mentioned owning citrus groves there and a willingness to sell off a piece of his land.

Womble cleared the land, built his old-Florida-style house and began a nursery to landscape the new homes that were slowly appearing on the south Lake horizon.

A visit to a co-worker's house in Maitland was Womble's first up-close look at palms, and the trees captured his imagination with their featherlike leaves and hideaway image.

"I realized I still wasn't doing what I wanted to do, so I started small and planted two or three types of palms

to see if I could do it," Womble said. "It was something my son and my wife and I could all do together."

That was more than 20 years ago. His family got in early on what has become a nationwide craze for the plants, said Phil Bergman, the president of the International Palm Society. Bergman has run a palm-cycad nursery, Jungle Music, in his native San



*Above, Hersh and Jackie, pictured in front of their house. Immediately behind them is a palm not usually seen in Central Florida: *Rhapis humilis*. This picture, snapped by a member (who?) in October, did not appear in the newspaper article.*

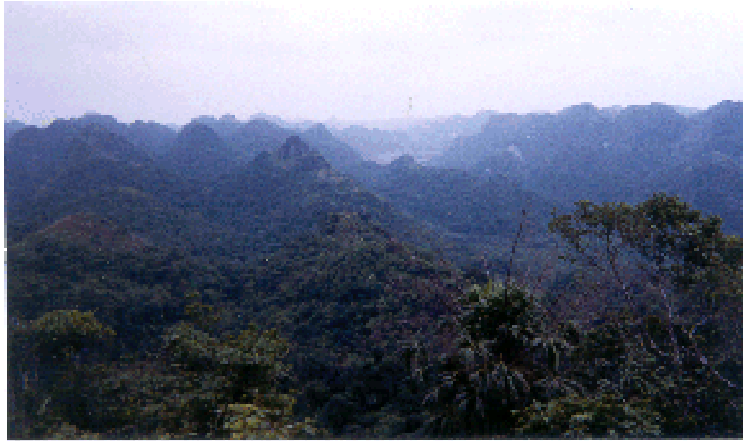
Diego since 1977.

Over that period, more and more people have become fascinated with the tree. Experts concede that they haven't identified all of the different species.

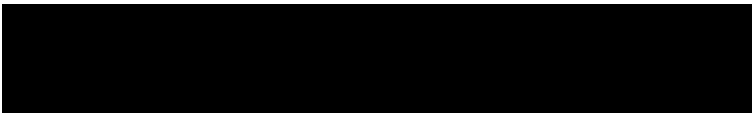
Some of the palms can survive even when it snows. Even though none can take Northern winters, elite boutiques and eateries in Manhattan have been known to truck small trees in, just to create an inviting image outside their businesses for the summer.

"With palms, you're really creating an atmosphere, not just landscaping," Bergman said. "You have a magical getaway, right in your own back yard."

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The picture at left (above) is Cac Ba, a limestone island off Hai Phong in northern Vietnam, where Gary Dahme, Mike's son, looked for *Livistona halongensis*, a newly described species (close-up, with the palms, below). In color, the landscape is eerily beautiful, with misty blue vistas. I've blanked out Gary's brief message, between the pictures, that came with the electronic transmission from Vietnam, because it was hard to make out and I was unable either to make it clear or to remove it.



Womble Palm Paradise

(Continued from page 16)

Womble retired eight years ago and gradually sold off his nursery business. But he has continued to create gardens and pathways on his property out of the palms and other favored plants.

Trips to Belize, Costa Rica and Mexico have given Womble and his wife access to other species and more information on what the trees look like in their natural environments.

New *Livistona* Species Discovered in Vietnam

Ha Long Bay, 165 km northeast of Hanoi, has nearly 2,000 islands. According to the bulletin of the Singapore Botanic Gardens (vol. 52, 2000), 788 islands are included in a World Heritage Site.

The same issue of that bulletin describes for the first time a number of plants endemic to these islands. *Livistona halongensis* is said to be different from other *Livistona* species in Vietnam, grows to about 10 m tall, with a 20 cm diameter. The new species has "spectacular" inflorescences in May, fruit in July. It grows in soil-filled cracks in limestone.

Gary Dahme, who is presently living and working in Saigon, was encouraged by his father and John Dowe to go to Ha Long Bay to collect herbarium specimens. A further report on his efforts and more pictures will be forthcoming in the June issue.

The backbone of many Central Florida palm collections has been various *Livistona* species, so we are all very interested in this new palm.

—John Kennedy

Palms 101: The Travelling Slide Show

[This article was published in PALMS, formerly *Principes*, volume 44, number 1, 2000. (March, 2000) and is reprinted by permission of Scott Zona and John Dransfield, editors of the *International Palm Society's* journal. It is presented here for the delectation of those who will not have seen it in the place of original publication. A picture of the author is not available.]

By John D. Kennedy

My employer (Indian River Community College, Fort Pierce, Florida) likes folks on the payroll to perform “community service.” This means that teachers and administrators are encouraged to go out into the four-county area that the public college serves to speak on various topics about which they have some knowledge. One faculty member, who has lived in Taiwan and who speaks Chinese, regularly talks to civic groups about Chinese Culture. Another, an anthropologist, speaks on the paranormal. But most topics are less exotic, often having to do with some aspect of health and wellness. Program chairmen/women of organizations are always on the lookout for likely speakers; the college’s speakers’ bureau is a handy resource.

When it occurred to me that maybe I too should perform some “community service,” I wondered what I should talk about. As a college English teacher with 30 years of experiences, as an Irish(-American) man, as a Philadelphian, I had no doubt that I could talk for an hour (at least). But—on what?

I had written two dissertations—one rejected, the other accepted—on the Victorian novelist, Anthony Trollope, and had read every one of his 47 novels. Was there an audience out there for Trollope? After all, I had given one talk to the local American Association of University Women (AAUW) group, some of whom had mistakenly thought I recommended for their delectation that 800-page, 1876 blockbuster novel, *The Prime Minister*. (An AAUW reading group had subsequently read and loved it!) I couldn’t really think that audiences were longing to hear about Trollope’s manifold virtues. I had also prepared and given another talk on “Reading for Pleasure,” though this topic inspired similar reservations.

Palms! That’s it! My wife, Ann, had joined the Palm Society—not yet the International Palm Society—in 1976. With the birth of our first child in 1979, her energies and attention were otherwise directed: I became the member of record, and chief resident enthusiast. Now that I had my topic, what could I say? Um.

I spent several months cruising the literature, trying to

get a grasp on basic botany. What are the growth points, what (exactly) is inside the trunk? Few concessions were made to the non-botanist; authors of many palm books were so eager to talk about leaves, inflorescences, fruit, species, that other information was skimpy. Corner’s *The Natural History of Palms* was most helpful. I soon realized that I didn’t have to provide a botany lecture, that I wouldn’t be addressing a class. But questions needed to be formulated and answered. **Who would** be my audience? What did they need to know? How much information did I want to provide? The audience would likely be seasonal visitors—“snowbirds”—and transplants from the North, many of them retirees, to whom the climate, the plants, the gardening practices in Florida are totally foreign to their experience. Where else in the U. S., indeed, does someone plant a flower or vegetable garden in October, then watch it die in May or June? The audience would need to know how to select and to care for palms. The information should be basic, straightforward, not confusing. A simple task to do all this, right? **I would** have to recommend palm species, but which ones? I went through the books, looked at lists, thought about what had succeeded for me, asked palm friends for suggestions. I narrowed species down into two categories: commonplace palms for identification, and less commonplace palms readily obtainable and relatively undemanding in care.

And, of course, there had to be a slide show. Lordy, I didn’t *have* any slides. Bernie Peterson, nurseryman extraordinaire, of Cocoa, Florida, came to my rescue. He had assembled quite a few palm slides for a talk he had given to a short-lived botanical society that was to nurture the palms planted on the Florida Institute of Technology campus in Melbourne by Dent Smith (IPS founder) and Jerry Keuper (then FIT president, later IPS president). I could have the slides on long-term loan.

In January, 1993, I gave my first presentation at Heathcote Botanical Gardens in Fort Pierce, whose director, Lib Tobey, had recently installed a section with some nicely labeled specimen palms. She happily informed me that more than 30 people had signed up to attend. A significant number were nurserymen. My heart sank. What kinds of questions might they ask? Don’t worry, I was told, they don’t know all that much about palms. (This reassurance turned out to be fairly accurate, for general nurseries and garden centers here

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Palms 101

(Continued from page 18)

usually sell a narrow range of palms: queens, washingtonias, Chinese fans, “pineapple palms” [juvenile *Phoenix canariensis*], *Phoenix roebelenii*, occasionally paurotis, *Rhapis excelsa*, and, more recently, majesty palms.)

My first palm talk wasn’t quite a disaster. I spent too much time trying to talk about palm botany and about the latitudes within which palms grow. Some slides that I had added to Bernie’s were almost too dark to be identifiable. My handout was a skimpy list of palms species suitable for planting in the area. The nursery-men bombarded me with almost non-stop questions, most of which I was fortunately able to answer. I almost lost control of the situation and my talk went on far too long, about an hour and a half. I was so late in finishing that the planned visit to the palm walk was over too quickly, and took place in the deep shadows of late afternoon.

I staggered home to lick my wounds and to figure out how to make repairs. Every teacher knows that the first time he/she teaches a course is a learning experience, frequently in what not to do. I streamlined the presentation to trim botany and geography. I got new and better slides. (If only all palms grew out in the open so that good pictures could be taken!) Eventually, I replaced about half of Bernie’s slides with my own; some of his were on fascinating palm detail that was wasted on an audience just learning to tell a palm from a petunia. Viewers needed more generalized pictures. **I put** together an expanded, more detailed 5-page handout that has been revised, tinkered with, and—hopefully—improved several times since. The first page was a list of palms by Latin and popular names, together with size, approximate cold-hardiness, and salt tolerance. The second page contained separate lists of native palms and of additional, less common exotic species obtainable from palm nurseries. Then, very **basic** general information about fertilizing, grooming (No, don’t trim off green or even yellow leaves, watch out with the string trimmer, don’t nail signs to palm trunks), what to do before and after a freeze, where to see palms (Fairchild, of course, and elsewhere).

All this came under the first-page title of “Suggested Palms for the Treasure Coast.” The Treasure Coast is a tag given to three small counties on Florida’s Atlantic coast: Indian River (my home county), St. Lucie, and Martin. Ships of the Spanish treasure fleet sank off this coast in the 18th century. The area is Zone 9B, the lower end of Central Florida, subject to occasional freezes not usually experienced in the balmy climes of West Palm Beach and Miami.

My major criterion for listed species was cold-hardiness; the Great Christmas Freeze of 1989, when the temperature fell to 18°F in my yard, was still horrifyingly fresh in my mind. The whole area, not just at my house, smelled for weeks of rotting vegetation. Not only palms, but also crotons, hibiscus, ixora, bougainvillea, and carissa browned as if blowtorched. A potential audience needed to know that palms seen in West Palm Beach (a mere hour’s drive south) might be too tender to survive on the Treasure Coast. I reluctantly included queen palms and washingtonias on the list of suggested palms (for identification), but also pointed out some disadvantages of planting these; I was enthusiastic about *Bismarckia*, which grows well here.

I re-arranged slides to match the order of species on the handout. I didn’t pretend to any knowledge of species outside my home area, concentrating instead on palms with which I had had experience or which friends had grown.

In four years I’ve given my palm talk about a dozen times, often to 50 or more people, to retirees in a mobile home park and to garden clubs, most notable of which was on Jupiter Island, an enclave of old money where George Bush’s mother—remember, she made him eat his broccoli?—lived her last years. I gave the presentation locally several times for the Florida Yards and Neighborhoods program of the state extension service, the purpose of which is to promote xeriscaping.

I’ve also spoken to two chapters of the Florida Native Plant Society (of which I am a member), emphasizing native palms, as well as in a local library program, and on my home campus. Most of the time I’ve had seedlings to give away: “freebies” are hard to resist. Usually, these have been *Livistona saribus* and, sometimes, *Chamaedorea microspadix*. I also set out forms for membership in the Central Florida Palm and Cycad Society and forms for membership in the IPS. Chapter membership is an easier sell to beginners, being cheaper and less of a commitment.

I present myself before the audience as low-keyed, good-humored, self-deprecatory (“I’m not an expert; the experts are botanists. I’m an English teacher, a hobbyist grower, who has learned a bit about palms by making real mistakes, unfortunately killing some palms in the process”).

The trick with an audience of neophytes is to provide information without condescension or lecturing. Such a local presentation raises consciousness about palms; perhaps something similar to what I’ve been doing might work elsewhere. Yes, I have received a few calls at home (I don’t give out my phone number but I am

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Palms 101

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in the directory): I have directed callers to reference books and to nurseries.

I have been amused to discover that a Ph.D. in English Literature confers a credibility in my audience on what I'm telling them about palms. I could give them, if desired, an expert opinion on a verb or on a novel, but it is the magic and mystery of palms that draws them and that makes Florida distinguishable from New Jersey.

Editors' note: The handouts mentioned are available from the author who stresses that they were developed for local areas.



Dr. Frank Brown, proprietor of Valkaria Gardens, visited by CFPACS last September, is caught in the midst of yet another funny story about how a plant was acquired. Photo sent by Julie Lounibos.

Author's note: The only changes I've made from the original publication have been to adapt the content to shorter paragraphs for improved readability in *The Palmateer's* narrower columns. I think I would now spell 'Travelling' as 'Traveling' but my original version is an acceptable alternative used in my youth early in the last century. Only one reader contacted me to ask for a copy of the handout; he lives in Las Vegas, Nevada. Last fall I made an extensive revision of the handout, updating information, and providing a short list of websites. Should anyone wish a copy of this handout, just ask. Remember, it's meant for the lowest end of coastal Central Florida and is not infallible. This new handout reflects the larger number of palm species (some fairly tender) now available here, not all of which may be prudent choices. Given the experiences of our current winter, not quite past at this writing, we now know that freezing temperatures largely missing for 11 years will recur. The new handout also includes some basic information about cycads, provided by Tom Broome.

When I read the proofs of the article reprinted here, in the summer of 1999, I had not given any palm presentation for about two years. Last month I gave my talk to the Amaryllis Circle of the Garden Club of Indian River County (a fiasco described on page 27, "From the Editor's Desk"), with the new handout and "freebies" of seedlings of an *Archontophoenix cunninghamiana* that had survived in Vero with minimal damage the freeze of 1989; my thanks to Frank Novak who provided these. I was unable to accommodate several previous requests for my palm talk because these conflicted with my work schedule. Garden clubs and condo owners' groups often tend to meet in the morning rather than in the afternoon or evening.

I might add some afterthoughts on the article. First, I've been teaching for 36 years now (no time off for good behavior). Secondly, while Bismarckia grows well in my area, I haven't been too successful with it. My Sharp-Eyed Critic will respond that my small Bismarckias don't get enough light to prosper.

The only other handout I have, that has nothing to do with palms, distributed at another talk for the AAUW, is an annotated bibliography of contemporary mystery writers. This also is available on request, but palm-persons only read palm books, right?

The Normanbya grove at Scott Ward's house in Indialantic, one of the gardens to be visited on March 10th. Come then to get a look at this quintet. Then compare with how well your Normanbyas came through the winter.



We won't say a word (more) about the barrier island in Brevard, nor anything at all about favorable microclimates, etc. We will all endeavor to think positively and will try to regard palm growers there as humanely as possible.

SEEDBANK REPORT

By Mike Dahme

Thanks to California member Sam Sweet and his colleague, Dan The Turtle [And Snake] Man, for providing large quantities of mostly habitat-obtained seeds of eight Australian *Livistona* species: *rigida*, *humilis*, *occidentalis*, *benthamii*, *inermis*, *lanuginosa*, *victoriae*, and *kimberleyana*. [In November habitat-collected seeds of *L* sp "Cooktown" and *muelleri* were distributed along with other Australian palm species.] Several of these have not been available before, and it's hoped that all will prove suitable for the central Florida climate. Sam's donations, including a residual amount for *Jubaea* seeds, will net the chapter over \$700 for the three months ending January 01. Except for the Cape River *Livistona* [*lanuginosa*], the collections were by Dan Holland in December and January, using maps provided by Sam.

Other donors for the quarter included:

Eric Anderson, almost \$100 worth of *Brabea armata* seeds.

John & Faith Bishock, well over \$100 for four species, including the Australian *Hydriastele wendlandiana* and seeds of his own Queen Palm derived from the far-south Brazilian state of Santa Catarina.

John Kennedy, for seeds of a Vero *Sabal* that strongly resembles *S. domingensis*.

Harry Kurchner, for seeds of his *Schippia concolor*



plant.

Joe Michael, nearly \$100 for seeds of three species.

The Montgomery Botanical Center for cycads *Dioon spinulosum* and *Stangeria eriopus*.

Norm Moody, \$95 worth of *Chamaedorea tepejilote* and *Arenga caudata*.

Charlene Palm, over \$100 for seeds of four species [including *Chamae-*

dorea metallica, the seeds produced on potted palms she dragged in and out of the garage as the weather dictated].

Lou Thomas, for *Zamia loddigesii* and about 40 carvings done in the Mayan style (from *Attalea cohune* seeds [see picture above]). As of this writing about half of these 3 inch high carvings remain, the requested donation is \$5.

Bud Wideman, for what else? Yes, that *Arenga pinnata*

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Leu Gardens Plant Sale, Orlando March 24th – 25th

As inevitable as the taxman, it's that time of year for the Leu Gardens Spring Plant Sale. Held Saturday March 24th (8 am – 5 pm) and Sunday March 25th (9 am – 5 pm). Before Uncle Sam can grab what's left of your wallet be sure to stop by and spend a few bucks at our chapter's booth. Admission to the gardens is free, as is parking; shuttles are provided to nearby off-site parking as well. Plenty of free advice and palmy hypothesizing galore, along with many varieties of palms and cycads for sale. Lots of rare and unusual stuff, including quite a few species that did not freeze this past winter! For more info or directions, or if you wish to be a vendor and participate in the sale please contact Dave Witt (407) 352-4115 or email biz-mark@mindspring.com. Space is limited; 20% of the sale goes to our chapter so price and buy accordingly - it's for a great cause – us !!!

--Dave Witt



That's Larry Noblick, in the center background, with the tour group at Monty on January 20th. In the left foreground is none other than Ruth Sallenbach.

SEEDBANK REPORT

(Continued from page 21)

palm is still putting out, over \$100 in receipts this quarter [almost \$1500 over the last 13 months]. But the end draws nigh.

Scott Ward, for two species including *Gaussia maya*.

Darin Yeatman, for *Z. loddigesii*.

Neil Yorio, for three species, including his collecting of thousands of *Z. floridana* to satisfy a special request.

A record-setting quarter both for \$ and species distributed, nearly \$2500 and 42.

Which reminds that, needing a break, I'll be out of station for March and Neil Yorio, >nkyorio@netzero.net< (321)779-4347, will be doing the mailing of seeds for the chapter. Please contact him if you have seeds to offer for distribution.

It is as easy to deceive ourselves without knowing it as it is hard to deceive others without their finding it out.

—LaRochfoucauld, Maxim #115

And the news from Australia. . .

An e-mail from member Daryl O'Connor in suburban Brisbane concerning his 4-foot *Pigafetta filaris*: "Having a real [expletive deleted] day...woke up this morning to find pig had been trampled in the night. Snapped off clean at ground level. Must have been a [expletive deleted] Kangaroo in the middle of the night. 18 months of caring for the bastard all destroyed in one kick! It was really starting to come on too...not impressed. Now I have to wait for next spring before starting again...next time I'm planting out 3 or 4 of them...increase the odds. [Expletive deleted] off big time. I would have accepted death from cold or rot, but not from something as sudden as this! gggrrr..."

An Omission...

The Editor's comment/judgment on the short-lived *PALMS* newsletter of the IPS was accidentally clipped off the article in the December issue during layout. Here is the full text:

No eighth issue appears. The two final issues make clear how skimpy the content is. Except for a few regularly recurring names, there is little continuity. With a world-wide membership of, perhaps, more than a thousand, almost no one contributes cultural information. Such as there is, is usually provided by Dent Smith. These last issues have nearly nothing on California palm activities. PALMS failed, in part, (I think) because it attempted something more logically done on the local or regional level, in chapter bulletins. Dent Smith's hopes for a down-to-earth, chatty, gardener's newsletter were never realized.

The USF Spring Plant Festival 2001

It's time again for the spring sale in Tampa. The University of South Florida, in Tampa, is hosting the spring plant festival on Saturday, April 14th, and Sunday, April 15th. The hours will be 10 am to 4 pm on Saturday, and 10 am to 3 pm on Sunday. Members of the USF Botanical Garden get in early at 9:30 am. **Last fall's** festival was one of the best sales we have had for a while. We had new vendors, as well as some of our veterans there. We had extra people to help with palm and cycad questions, and many of our members showed up just to see their friends in the society, and meet new people.

If there is anyone who would like to be a vendor, please get in touch with me as soon as possible. We need to get nametags for you, so we need to know who is coming out as early as possible, and not at the last minute.

If there is someone new who does not know how to get to the garden, it is near the southwest corner of the USF campus, in Tampa. You can get to the campus on the Fowler exits from either I-275 from the west, or I-75 from the east. From the east, you will drive a few miles before you see the campus. Turn right into the main entrance, and go to the first light. Turn left, the road will end at the entrance to the garden. From the west, get onto Fowler and drive about a mile, and then turn left into the main entrance, and follow the other instructions. There will be people to show you where to park.

Getting plants at the spring sales mean that we can plant what we buy right away, instead of worrying about the oncoming winter ahead. I would like to invite everyone to come out, especially the people who have not been to this sale. Most of the other societies are there as well, so if you enjoy growing plants such as bromeliads, orchids, ferns, or anything else unusual, you can find it at this sale.

If you need more information on the sale, or would like to be one of our vendors, please contact me, Tom Broome at (863) 984-2739. I hope to see everyone there.

Ganoderma News

Ganoderma zonatum, palm butt rot, does not originate from a wound in the trunk. Conks appear *after* internal infection has occurred. The fungus generally extends no more than 5 feet up the trunk and, thus is not spread by pruning tools that are used on leaves.

By the time conks form, the trunk has already been destroyed; no fungicide will be effective. No discernible pattern of infection is known as to why palms become infected and die. The quantity of mulch around the trunk, close plantings of flowers, or "painting the trunk" have no connection with infection.

Conks should be removed as soon as they appear and placed in receptacles to incinerate or go to the dump. Don't put in trash that will be recycled into the landscape. Don't plant palms in the same spot; the soil is infected. *Ganoderma* only affects palms. See more on new IFAS Fact Sheet PP-54; <http://edis.ifas.ufl.edu>

—John Kennedy

Winter in Gainesville

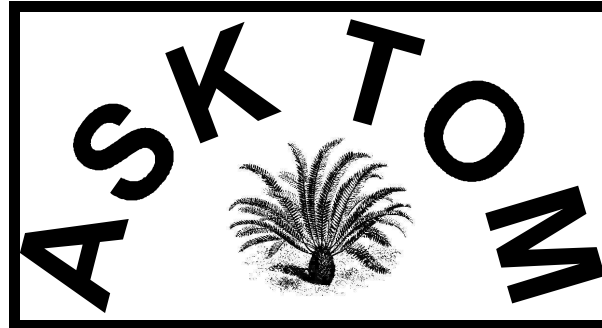
By Roger and Marilyn Bachmann

In December and January we had 28 nights with temperatures below 32 F including seven between 17 and 20 F, eight between 21 and 25 F, and 13 between 26 and 30 F. These are from the official records from IFAS; our place seems to be a few degrees warmer and we have some tall pines to help shield from frost.

In addition to the usual cold-hardy palms, we had many other palms that showed little or no damage. These include *Washingtonia filifera*, *W. robusta*, *Phoenix sylvestris*, *P. dactylifera*, *Livistona chinensis*, *L. decipiens*, *L. australis*, *L. saribus*, *Sabal causiarum*, *Sabal* "Riverside," and *Tritrinix acanthacoma*. Two types of hybrids (*Butia/Syagrus* and *Butia/Jubaea*) are fine. *Acoelorrhaphe wrightii*, *Copernicia alba*, and *Livistona mariae* were covered with frost cloth and show no damage.

Our lady palms (*Rhapis excelsa*) were under an overhang and were only slightly nipped. *Phoenix rupicola* had a frost cloth cover and has some foliar damage. There was also some foliar damage to our 30 foot queen but it looks like it will survive. The *P. reclinata* is about 80% brown, but there are green shoots underneath. We had two *P. roebelenii* that we covered with frost cloth tents heated with flood lights. One is very brown and the other looks untouched!

Lastly, we have a *Ravenea rivularis* and a *Dypsis decaryi* that got too big for their pots so we put them in the ground. They were covered and had lamps but both were hit pretty hard. Time will tell who will survive.



At what time of year do cycads produce flushes of growth? To stimulate flushes with fertilizer applications, how far in advance does someone need to apply the fertilizer? How many flushes can be attained in one season? Thanks, John.

I have noticed that certain species produce leaves at certain times. In the nursery, I will see 20 plants of the same species will all produce leaves within a 3-week period. *Zamia floridana* will usually produce leaves in the spring time, but rarely any other time. Sometimes they produce leaves in the fall as well. *Dioon mejiae* will produce leaves only after the weather has been very hot, which normally is July or August. One year we had mid 90s in April and May, and these *Dioons* produced leaves a couple of months early, but still at the same time. I have also tested a certain group of plants where I fertilized them well one year, and then tested them without fertilizer for that year. As an example, I tested a group of *Encephalartos gratus*. When fertilized properly, they produced leaves in April, July, and September that year. When they were not fertilized, most of them produced leaves in September, but only a couple of them produced leaves in April. After seeing this, I knew September was the dominant time and had nothing to do with the fertilizer that could have been still left earlier in the season. Without question, most cycads will produce more sets of leaves when fertilized properly.

To estimate how far in advance you need to apply your fertilizer, you need to know how each product releases the Nitrogen. A urea based fertilizer will release in about 3 weeks. A time release fertilizer like Nutricote may take up to 2 months to release enough Nitrogen to force another flush of growth. For best results, I use a urea-based fertilizer with an analysis of approximately 20-10-10. I would use this product 4 to 5 weeks before you would expect new leaves. This type of fertilizer is very "hot" which means it can burn easily if not used according to label instructions.

Each species will produce leaves at a different rate. Some will produce leaves when it gets hot. Some

species react very well to fertilizer applications, and some do not. I hate to generalize, but most of the *Dioons* similar to *D. merolae* rarely produce more than one flush per year. Most cycads will produce leaves sometime in the spring, and sometime in the fall. The species that react well to fertilizer applications are the most noteworthy. From testing 150 species of cycads, I have found that *Cycas taitungensis* wins out at six flushes in one year. *E. arenarius* is next at five. Both *E. ferox*, and *C. revoluta* (king sago) come in at four per year. And *Ceratozamia hildae* is 5th at either three or four times per year, but most will get four sets. This makes these species some of the best cycads for nursery and landscape use. Cycads are thought to be slow growing plants, and most nurseries think that growing such a long-term plant is not profitable enough. These species show to be the most promising because nurseries can grow large plants in 10 years or less, or can grow a medium sized plant in 5 years or less. For more information on fertilizing cycads, see my article in one of the back issues of our newsletter.

I have a question about Bowenia serrulata. Do you know how hardy this species is?

Mine has been through 16°F this year with very little damage. Quite a surprise! Also, how large do they eventually become?
Don

Just last year, I also found out how cold hardy all the *Bowenias* are, but you have tested it to a lower temperature than I did. I found that a *Bowenia* that is growing under cover can tolerate down close to 20F without any leaf burn. This means that *Bowenias* should be able to live in areas that get down to about 12F without much problem because their stems are subterranean and are protected from the cold. This would also mean that a stem buried lower into the soil would survive in even lower temperatures. I would not suggest planting these plants too low unless they are growing in a very

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BOOK REVIEW

Ornamental Palm Horticulture

Timothy K. Broschat and Alan W. Meerow

University Press of Florida

Gainesville, FL 32601

ISBN 0-8130-1804-8

256 pages with 110 color plates, Appendix and Index.

Suggested retail price, \$40.00

By Phillip J. Stager

This recent addition to my palm library may strike some readers as a bit pricey. However, if the cost of the book saves one of my better palms it will have more than paid for itself.

This book covers a lot of the same topics but in far greater detail than a similar work:

Diseases and Disorders of Ornamental Palms

-Edited by A.R. Chase and T. K. Broschat

American Phytopathological Society, 1991

ISBN 0-89054-119-1

Ornamental Palm Horticulture begins with a review of basic palm biology in relation to horticulture and then proceeds to cover (in greater detail than the other work) all the problems one may encounter with the growing of palms as either a hobby or a business, i.e. propagation, environmental effects, mineral nutrition, arthropod pests, diseases, container production, field production, transplanting and landscape and interior-scape use of palms. I particularly appreciated the extensive literature cited after each chapter. The color plates were well chosen and are grouped to illustrate a wide variety of problems and pests one encounters in growing palms. The authors also made liberal use of many black and white illustrations and photos throughout the book.

The chapter I found most useful was the one on Mineral Nutrition of Ornamental Palms. Many of us spend good money on fertilizer. This chapter should help one get more growth for your fertilizer dollar which, in turn, will produce healthier palms which, in turn, will be more resistant to disease and cold. Guidance is provided for both container grown and field grown (or in my case, landscape/yard grown) palms.

This book may not make one an expert in palm problems but will surely enable one to ask better questions and to avoid common mistakes. The book should be a *vademecum* for any palm enthusiast. I highly recommend the book.



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well draining area. I'm sure the duration of cold temperatures would alter the low temperatures they can endure and should be considered as well. I tested my *Bovenias* under deep shade, on the south side of an oak tree, just under the drip line and they were still fine. The plants that were out in the open got totally burned, but came back in the spring.

I have seen *Bowenia serrulata* with leaves that exceeded 6 feet tall. One of our members has the most beautiful plant I have ever seen. Each leaf looks like a parasol with a diameter of about 40 inches on stems that are 6 feet tall and about 1/2 inch thick. The plant doesn't have an above ground stem like a sago, but appears to have separate leaves coming out of the ground in a cluster. A large underground stem can be 3 or 4 feet wide over time. All the *Bovenias* make a great containerized plant to go along side a pool area. They grow best once they are in a container size of about 10 to 15 gallons. I have some that are 4 feet tall and have about 25 leaves showing in 15-gallon containers. Those clusters have spreads about 4 to 5 feet wide.

Just for information, Don lives in Georgia where they get a little colder than most of us here in Central Florida.

—Tom Broome



A nice shot of a beautiful Arenga engeri, to rest your eyes after all that print. The picture is from a file; I can't recall where the palm is or who sent it. (Ed Brown on the loose in Oakland, California? Frank Radosta in New Smyrna Beach?)

BOOK REVIEW*Betrock's Cultivated Palms of the World*

By Don and Anthony Ellison

Betrock Information Systems, 2001

257 pages.

List price: \$59.95

By Mac Rogers

The introduction begins: "With the publication of *Cultivated Palms of the World*, Don Allison and his son Anthony have broken new ground with a fine and very useful publication. This book will prove of enormous value to anyone with more than a passing interest in palms. Whether you are a botanist, horticulturist, professional palm grower or retailer, home gardener, or a dedicated palm enthusiast, this book is sure to become an essential reference for your shelves."

Indeed, this book covers more individual species and cultivars, with photographs of and easy-to-read individual descriptions of each, than any other book of which I am aware.

The format is virtually fixed, with ¼ page devoted to each kind of palm and only infrequent ½- or full-page photographs added. This format makes the book handy as a catalog and reference for identification purposes.

While the format has its good points, it is also a major weakness. Each plant identification is self-contained, making it easy to use. However, this feature makes for repetitiousness and inefficient use of space. Generalities that apply to a genus or species could be stated only once, with a considerable saving of space. Then that space could be used more efficiently (in my opinion) to describe uniqueness or peculiarities of that particular subject. Looking from that point of view, the book is oversized and overpriced for the amount of information that it contains. The authors and other defenders will undoubtedly counter that the good points outweigh that criticism.

A case in point of valuable information that could be included but is not is stating genera that are **unisexual** (e. g., *Bismarckia* and *Chamaedorea*), and species that produce flowers of both sexes on the same inflorescence but usually not at the same time (e. g., *Archontophoenix cunninghamiana*). With those, the would-be grower needs to either have multiple specimens of the same palm, or to know the difference between male and female blossoms, to collect pollen from another grower's plants, and to practice hand-pollination. One might expect that such information should be included in a book which has such high pretensions and contains the word "cultivated" in its title.



That's Teddie Bubler patting her Livistona carinensis, growing at East Ridge Retirement Village in Miami. The person on the right is not wearing the notorious red (he thinks it's pink) shirt. File picture dates from Summer, 1999.

Farewell, Monty?

Montgomery Botanical Center was, as usual, full of beautiful and interesting plants when our chapter went there on January 20. Doubtless, CFPACS will return again in the future.

However, I don't know that I will be back.

I am a browser, who putters and noses around, often rather slowly. This was not permitted during our recent visit. A female employee, armed with a walkie-talkie, rounded up stragglers, saying that it was time to move on, that the tour (led by Dr. Larry Noblick) had gone on. I was told this any number of times, very politely. It was plain that my lingering—along with others doing the same thing—was not allowed.

Perhaps I should have said, "I'm not interested in the tour." I don't know what kind of response that might have elicited. Several members commented to me about how unhappy they were at being hustled along. Maybe my (and their) kind of dawdling is only possible now at Fairchild.

I was told that one of the visitors picked up a flower fallen on the ground from a tree (the huge *Pachypodium*?). The security person, without a word, removed the flower from the woman's hand and tossed it on the ground. The visitor returned immediately to the parking lot where she sat in the car, awaiting the return of her party.

--John Kennedy

From the Editor's Desk

This issue of *The Palmateer* has no less than five reports on the damage to palms in the unkind weather of December and January. Maybe for the September issue, the same five reporters might do follow-ups on how many of their palms recovered during the summer, and at what rate? (John Bishock's idea, a good one.) Deadline for material for the September issue would be the end of the first week in August.

A few palms I've had for a long, long time. Among them is a gift from my mentor, Bill Bidlingmayer, of a small *Copernicia hospita*. It had two little (4-inch) gray ears, yes, another rosette. I planted it out around 1980, hopefully, understanding that it was very slow growing. Five years later, it was no bigger, but I was a true believer. Although right out in the open, its rosette was untouched in '89 freeze. In 1992, I gave up on it, permitting the native fern, *Blechnum serrulatum*, and the pest, pothos, to cover it. Every so often, I noticed that it was still alive, still the same size, under the covering vegetation. If I felt forgiving, I would clear the plants over it. I looked, just a few minutes before writing this, to discover (unsurprisingly) that it's still alive, unharmed by the cold, and—twenty years later—the same two leaves are just a little larger—10 inches, divided—under the weeds. Should I write to the Horticultural columnist for PALMS to ask what I might do?

A tour of the "collection" in the Kennedy Palm 'n' Weed Garden on 3 February reveals more damage than was at first apparent. All of it is pretty minor compared with that suffered by those of you north and inland of Vero Beach which, of course, is at the bottom and coastal end of Central Florida. My house is about four miles from the Indian River and six miles from the ocean. The only time I experienced freezing temperatures was for half an hour (7:00-7:30) on the morning of 31 December, when it remained exactly at 32F. The cold that the whole state experienced in December and January brought lows for me in the 30s—above freezing—with a sharp wind blowing that seemed to preclude frost.

Almost immediately apparent after my marginal freeze was damage to an exposed *Livistona rotundifolia* and an adjacent, small *Polyandrococos caudescens*. Whole leaves weren't blackened; there were large brown spots, so I am assuming frost rather than freeze damage. But a smallish *Dyopsis cabadae*, under an almost leafless laurel oak, with a 3-foot trunk and five 4-foot leaves, was hit hard. Four of the leaves were completely brown; nothing else in the immediate vicinity

showed any damage. But the first Saturday in February revealed that an old, small (2 feet high, a 5-inch trunk), always unhappy *Dictyosperma album* almost as badly damaged as the nearby Cabada palm, despite being under the canopy of a fair sized red bay tree (*Persea borbonia*). Some slight browning was visible on a small *Calyptronoma rivalis*, planted under pines, the gift of a new Puerto Rican landowner. Then, that *Arenga pinnata*, with 4 feet of trunk, standing in the open, revealed a number of browned leaves that I didn't recall seeing before. A small *Schippia concolor* took several days longer to turn mostly brown. . . .

My potted palms, not more than 50 or so (mostly small), spent two weeks in the garage and didn't look really happy when finally carried out. Maybe we should keep in mind that palms, many of them, do tend to look ratty in winter. Air conditioner weather for humans is perfect outdoor temps for palms. Now. . . if only the rains would come--much before hot weather.

I gave my palm presentation in early February, for the first time in about three years, to the Amaryllis Circle of the Indian River County Garden Club to about 20 mostly older ladies, all very interested and alert. It was a comedy of errors. I plugged in the projector, but no light came on. Huh? I had borrowed this (and a screen) from the college where I work. Maybe a new kind of projector, switches in different places? After my fumbling around for five minutes or so, one of the ladies put the plug into another outlet. Nothing. This, it seemed, would be the slide-less slide show.

Then, the same lady plugged the cord into yet a third electrical outlet. *Voilà!* Lights, action, pictures. But the slides seemed to be in upside down, at least the first three. Usually, I preview slides and projector ahead of time, but had put it all together, hurriedly, the night before. Another lady volunteered to straighten the slides while I went over the items on my handout with the audience. Oh. . . only the first three were upside down, but now all of them were. "Isn't it a good thing, ladies," said I, "to reach the age where one is no longer embarrassed?" I held the projector at whatever angle necessary, so that the picture was upright. I gave out freebies, Solo cups with seedlings of Frank Novak's *Archontophoenix cunninghamiana*, the one that survived the '89 freeze in Vero, together with an accompanying sheet that told what it was and how to care for it.

Since I was allotted only 30 minutes, I was able to

(Continued on page 29)

THE BROOKSVILLE FACTOR, OR LIFE IN THE COLD, 15 MILES EAST OF SARASOTA BAY

By John Bishock

A few weeks ago I was on the IPS site and someone wrote, "I drove thru Sarasota and everything was green what is that guy talking about." He was referring to a previous posting I made explaining the extent of the damage to my palms on Jan. 5 at 22 degs.; my farm is 15 miles east of Selby Gardens whose low was 33 degs. Walter Darnell in Lake Placid had lows 22 degs miles from the lake but in town it was like downtown Sarasota! Tom Broome also has a cold spot, a spot that is always colder than surrounding areas, like Brooksville, a town north of Tampa that is always colder than other towns near it; on nights before an impending cold front I watch Brooksville's temps. rather than Tampa's to get an idea how bad it's going to be, but if you are located west of I-75 you would look to Tampa's temps. **Well, this** Winter I had many opportunities to test the "Brooksville Factor." I had nine nights below freezing and six nights of heavy frost. I think a Winter like this gave us all an opportunity to study "Cold Hardiness." I know I learned a lot. Winter for me started on Dec. 19, when it went down to 29 degs. The only palms affected were an African Oil and a *Livistona merrillii* were totally fried and three *Hyphaene petersiana*'s were semi-fried.

Over New Years I had three 29 degs nights in a row. These four freezes caused only 10% of the damage to my palms. On the night of Jan. 5 I got up about 4 am to check the heaters in the greenhouse and checked a new thermometer in the open: it read 22 degs. Then I went to the birdbath and it was ice.

One member in Tampa, Joe something, posted on the IPS board that I read my thermometer wrong and that by his calculations I did not go below 26 degs. Well, by noon the next day water began to run out of the kitchen wall; my pipes had frozen. That afternoon I walked around the farm surveying the damage with Ray Hernandez; it looked bad, but not that bad. Then, latent damage reared its ugly head, five days after the bad freeze I'm looking at my rather large *Borassus* and thought, wow, it's looking good. Then, two days later, it started, the *Borassus* turned over 80% brown.

Ten days after the bad freeze, things were still getting worse. It was depressing. *Acrocomia aculeata*, 22 ft. trunk in the open, 70% brown; *A. totai*, 8 ft. trunk, totally brown, but now pushing green, *A. vinifera*, 12 ft., totally

brown. *Arenga engleri* in the open, 10% burn, but *Arenga tremula* under an oak, totally black. *Bismarckia*'s (3), one in the most protected spot, 100% bleached white like paper, another, 50% burned, but the one way out in the middle of a field on the coldest part of my land was untouched. *Borassus aethiopicum*, 80% burn; the bud looks good and starting to open. *Brabea*'s untouched. *Caryota urens*, *ochlandra*, *mitis*, 100% burned.

My greatest loss was a clumping *Caryota* sp., 25 ft. tall that has endured 12 freezes in 9 years with no damage, was 100% burned to a bright orange. *Chamaedorea*'s, they all burned 100% except *C. radicalis* and *C. microspadix*. *C. cataractarum* in ground 9 yrs., never damaged before, turned black except for new spears which turned white.

Copernicia? This genus was the big winner for me, they all look great. *Corypha utan*, 100% fried. *Daemonorops angustifolia* under oak, no damage. This one's a real sleeper. *Gastrococos crista*, 8 ft of trunk, in the open, took the four 29-deg nights with no damage but burned 100% at 22 degs.

Hyphaene's? This genus got burned bad. *H. petersiana* burned at 29 degs. *Livistona*: *L. australis*, *L. benthamii*, *L. decipens*, *L. drudei*, *L. fulva*, and *L. rigida* are all in perfect shape. *L. muelleri*, 80% burned, *L. "Cooktown"*, 50% burned, *L. jenkinsiana*, 100% burned, and *L. woodfordii*, 100% burned. *Phoenix*: *P. roebelenii* and *P. rupicola*, 100% burned. *P. reclinata* (10), from 80% to 30% burned. *Syagrus botryophora* dead, *S. macrocarpa* dead, *S. oleracea* dead, *S. pseudococos* dead, *S. sancona*, 100% burned but new frond showing green. *S. cearensis*, 7 ft clumper, 100% burnt.

The winners: *S. tostana* (*coronata* x *schizophylla*), very little damage, *S. quinquefaria*, no damage, and *Syagrus* sp. "Santa Catarina," no damage. *Wallichia densiflora*, 100% burned. *Zombia*, no damage. Well, it's time for me to get the sprayer out and spray some copper. I think it would be useful to do a follow-up in our fall issue to find out what makes it.

Cycad Expert Speaks in Vero

By John Kennedy

Dr. Bijan Deghan, of the Department of Ornamental Horticulture at the University of Florida, gave a presentation on cycads to members and guests of the Eugenia (Vero Beach-Fort Pierce) Chapter of the Florida Native Plant Society on the evening of February 15 at the Florida Medical Entomology Lab (FMEL) in Vero. Thirty-five people listened attentively to Dr. Deghan and watched his spectacular pictures (a Power Point program in his laptop computer).

While the talk was billed as “The Florida Coontie and Other Cycads,” essentially it was a basic general introduction to cycads, their culture, and their habits of growth. Clearly, Dr. Deghan has introduced other audiences to cycads with this program. Cycads go back 150 million years and all species are considered endangered (or worse), including Florida Coonties.

To those listening, who had thought there was only one species of Coontie, *Zamia floridana*, Dr. Deghan pointed out a second species, *Zamia umbrosa*. The former is a West Coast plant, the latter a plant of Florida’s northeast. On a Florida map, *Zamia floridana* was shown as native to two areas, generally northwest of Tampa, the other in the vicinity of Fort Myers. *Zamia umbrosa*, on the other hand, inhabits an area around Palatka, extending down into Brevard County. Coonties around Gainesville tend to be hybrids of the two

species. An intriguing picture was of “The Palatka Giant,” probably a hybrid that is large, rounded, and very handsome; its location in Palatka testifies to the plant’s cold hardiness.

“Coontie” is a Seminole Indian word, meaning “white bread plant.” This refers to the starch extracted from the plant roots and used, after treatment, as flour. Untreated, the roots are toxic. The Attalea butterfly, until recently thought to be extinct, depends on the Coontie as a food source in its caterpillar stage. The near wipe-out of the once abundant coonties, due to habitat destruction for development, also decimated the population of this butterfly.

There are 10 genera of cycads and three families: *Cycadaceae*, *Stangeriaceae*, and *Zamiaceae*. The families are distinguished by different venation in the leaflets. The *Stangerias* were initially described as ferns, but the appearance of cones made the mistake obvious.

Two species were particularly recommended by Dr. Deghan, *Cycas taitungensis* (more cold hardy than *Cycas revoluta*) and *Dioon edule*. He also mentioned *Ceratozamia*s as cold hardy, attractive cycads from Mexico. *Zamia pumila*, widely sold in Florida, is a native of the Dominican Republic; *Zamia integrifolia*, he said, is an illegitimate name.

Particularly interesting to many in the audience were the pictures of germinating cycad seeds and of embryos. The seeds take up to two years to germinate, most usually require hand pollination since cycads are dioecious. When the female cone is ready for pollination becomes apparent because it gives off a foul odor and becomes 10-15 degrees warmer within. Seeds are ready for planting when the female cone falls apart and are not completely developed before this.

Cycad specialists recognize the importance of morphology and continuing DNA research to identify and to relate plants.

Dr. Deghan believes that to save endangered plants, it is necessary to make them popular. Nurseries will then grow them and won’t go collect them from the wild. His low-key, knowledgeable presentation made those in the audience aware of plants that they had previously known little about.

[More details about Coonties, together with good pictures, may be found at Tom Broome’s website, www.cycadjungle.8m.com
Some of the nomenclature differs from Dr. Deghan’s.—Editor]

From the Editor’s Desk

(Continued from page 27)

show only about 20 slides. This was not a bad thing because when I revamped my handout, I no longer had pictures of all the [new] palms that I had added. I’m in the process of getting these pictures/slides now. To make my exit from the Garden Club building complete, the screen, easy to set up, virtually came apart in loose sections as I carried it out to the car. *Be Prepared* is the Boy Scout motto and—on the next occasion—will also be mine.

You did notice that there aren’t many pictures in this issue. The reason is that I received very few (nothing from Peter Mayotte this time: where are you, Peter, taking pictures for June in some faraway place?). Please send me some pictures for next time, either glossy prints or electronically in jpg. format. Deadline for June is May 7.

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The Central Florida Palm & Cycad Society is looking for a few good men and women to join up. Those discerning recruits will have recognized the value of palms and cycads in the home landscape and the importance of fellowship with the like-minded. In addition to receiving this interesting publication four times a year, members may join the CFP&CS seedbank and can attend our meetings around Central Florida where we get to poke around in other people's gardens, either to inspire us or to compare with our own. Meetings always conclude with a sale of unusual palms and cycads at most reasonable prices. Just fill out the membership form below.



In the middle of Teddie Buhler's palm garden at East Ridge Retirement Village, a mile south of Fairchild, is a magnificent Livistona carinensis. (File photo from Summer, 1999)

Please print

Name _____
 Street _____
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Wish to be added to Seedbank E-mail list? (Circle one) YES NO

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

Mail check made out to CFPACS (\$10 one year; \$25 three years) to:

Membership Chair
 4645 Canterbury Drive
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**DEADLINE FOR JUNE ISSUE:
 MAY 10**

The International Palm Society (IPS)
 Anyone interested in joining the IPS and receiving the quarterly, illustrated journal, *Palms*, should send a check for \$35 (regular membership) or \$45 (family membership) to:

International Palm Society
 P. O. Box 368
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Dues may also be paid online at the IPS website, www.palms.org



Russell Long
stands next to
the "Palatka
Giant," a form
of the Florida
Coontie, shown
here growing in
Gainesville. Pic-
ture from Tom
Broome's website
(cycajdunngle.com). See story,
p. 29, *gyaad*
program in *Vero*
Beach.

The Palmateer

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