

The Palmateer

Volume 14 Number 2

Central Florida Palm & Cycad Society

June 2022

June Meeting at Dunlawton Sugar Mill Botanical Gardens in Port Orange

We need a little sugar By Libby Luedeke

A little Sugar Mill Botanical Gardens, that is. Our HOT summer meeting started a bit humid but ended in air conditioned relief. Many of our members were probably unable to come due to the highest gas prices in recorded history, but we did end up with around 32 people which is pretty good for summer.

The Dunlawton Sugar Mill Gardens are locat-



Left, members identify palms at Sugar Mill Botanical Gardens. Right, prez Dave Hall talks of plans for Dent Smith memorial garden.

(Photos by Libby Luedeke)



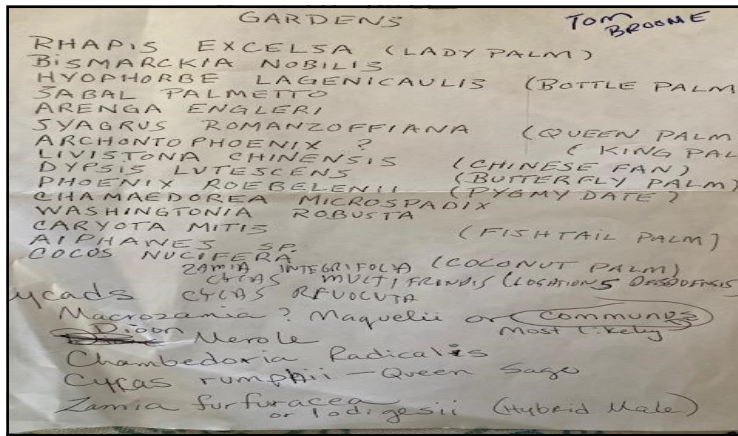
ed in Port Orange at a location that is also a historical site. In 1836 The Dunlawton Sugar Mill Plantation was the site where a large band of Seminoles that were pillaging during the 2nd Seminole War met heavy battle with the Florida militiamen called the Mosquito Roarers. They were not able to disperse

the Seminoles, however, and the sugar industry in this area never recovered. In 1862 it was a camp headquarters for the St. John Rangers during the Civil War. Later on in 1939 the location became an amusement park called Bongoland which included many commissioned concrete dinosaurs to be erected

which are still there today. The park closed and sat neglected until the land was bequeathed to a Mr. Lloyd in 1963. IN 1985 Martin Wittbold, a local nurseryman, formed an organization called the Botanical Gardens of Volusia, Inc. and made an agreement to lease the land which began the life of Sugar Mill

Botanical Gardens. **To backtrack** just a bit and explain why this garden is important to us, in the 1950's just down the street from the gardens lived a man by the name of Dent Smith. Dent was a true palm enthusiast who retired in his 50's and decided to start a society devoted to the love of palms and within 10 months he had recruited 200 members and created the ***Principes*** publication as principal editor and writer. This society became the International Palm Society which later

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Prez Dave Hall on the job, noting palm species at Sugar Mill Gardens. (Photo by Tracy Hines)



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Terrence Williams, Central VP, explains to the Editor (mask and hat) at Dunlawton Sugar Mill Botanical-Gardens. (Photo by Matthew Kennedy)

The Palmateer

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June Meeting at Sugar Mill Gardens

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on spun off the Central Florida Palm and Cycad Society. As an extreme palm nut the weather played a huge role in Dent's life as the life and death of his palms depended on it. Living above the frost line proved to be very challenging. In the winter of 57'-58' frost devastated his collection taking out up to 600 trees. This led to him creating a strong list of cold hardy palms that we central FL folks live by and try to expand upon.

So that brings me back to Sugar Mill where a section of the garden was dedicated to Dent Smith's legacy in 1990 which fol-

lowed a winter that showed 17 degrees for the low with 30 mph winds. With a list of his cold hardy palms, a palm garden begins. As a society, our plan is to create a committee and begin to develop and plant palms that Dent had on his list initially to revitalize the palm garden that has been somewhat neglected due to the fact that there is no admission required for the garden and it is cared for by a small group of volunteers that are simply overwhelmed by the scope of area that needs care-for which is 10 acres.

We also plan to identify and label the items in this area properly. This has been discussed for a while, but we really hope to get things going soon.



*Under the magnificent trees of Sugar Mill Gardens. (Photo by Matthew Kennedy)
Below, Keith Santner's presentation on fertilizer. (Photo by Libby Luedeke)*



Between this and assisting John Rossi with his up and coming botanical garden "St Johns Botanical Garden" in Hastings, Florida, we can use all the help we can get. Hence our mission to educate, inform and protect endangered species. If you are interested in helping the society to continue to move forward, please contact our president. Dave Hall, at president@cfpacs.com.

After our visit to the gardens, we met in New Smyrna Beach to eat and enjoy a presentation by Keith Santner who served as our treasurer for a time and continues to serve as our West Coast Vice President. As a grad of Texas A&M majoring in horticulture and as a student du

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June Meeting Sugar Mill Gardens

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ing the year 1982 when Texas had a freeze that registered 7 degrees from 70 degrees the day before, Keith was amazed at the devastation to the palms of that area that he had begun to love. This prompted a future as a palm enthusiast. Later Keith went to work for **Scott's** brand fertilizer after that. Their claim to fame is **Osmocote**, the first controlled slow release fertilizer which is sold worldwide. Keith's role as technical services advisor has afforded him the ability to travel worldwide to inform and educate farmers and nursery owners in the health of their crops, identifying prob-



*Welcome to Sugar Mill Botanic Gardens. It's free!
(Photo by Matthew Kennedy)*

lems and solutions to succeed. Today, Keith shared this information with us. Keith and Dave Hall had gathered samples of the soil surrounding the areas around the palm garden at SMBG. This is an invaluable tool to insure the health and survival of the palms and cycads we planto put into the ground and

maintain the existing ones. Keith explained how important the root systems are to growth and health. The root to shoot ratio is estimated to be seventy percent of what happens to a plant is above the ground but thirty percent is what happens below. The most essential nutrients

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Above, identifying palms at Sugar Mill Botanic Gardens. Below, Tom Broome and Neil Yorio agree: it's Encephalartos whitelockii. (Photos by Libby Luedeke)



June Meeting Sugar Mill Gardens

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are absorbed and translocated by the roots. The below ground ecosystem is as important as what happens above, so our goal is to as closely mimic what the plant experiences in its natural environment as possible.

Keith also informed us that although his company has yet to develop a good palm fertilizer, **Suniland** has. How's that for a dedicated palm and cycad enthusiast. This meeting is a prime example of why we have a society at all. We are very fortunate to have information like this available to us. We look forward to our next meeting in Lakeland on October 22nd. See you there!



Above, Queen Sagos at Sugar Mill Botanical Gardens. Right, sign of area to be dedicated to Dent Smith.

(Photos by Libby Luedeke)



Beyond Hardiness Zones: Metrics That Matter

By: Jeremy Evanchesky

The predominant measure of suitability of a particular area's climate to grow a palm is the USDA Hardiness Zone. Zones 10a and above are considered Valhalla for palm and cycad growers. Those in zones 9b or lower can expect a geometric decrease in what species are expected to thrive as the zone rating is reduced. Just in the state of Florida, the membership of CFPACS spans zones 8a in the parts of the panhandle with the most winter chill through the 11a areas in coastal southeast Florida. You'll notice the issue with using this measure as the sole metric to evaluate climate when you realize a refrigerator is zone 10.

The USDA Hardiness Zones are calculated by averaging the lowest temperature during each calendar year for 30 years. They are not the absolute minimum recorded during that time period. Using Bartow (KBOW) as an example, the lowest temperature recorded in the last 30 years was 26F in 2010. If you average the annual lows from 1993-2022, you get 32.2F which is USDA hardiness zone 10a. Performing the same exercise for Orlando Executive Airport (KORL) yields a minimum of 27F with an average of 32.9F. With these stations so close in terms of hardiness zone calculations, there must be more at work than average annual lows to explain the better performance of cold-sensitive palms in the Orlando area.

NOAA_ID	NOAA_NAME	START DATE	END DATE	AAL 30	AAL 30 ZONE
USC00080478	BARTOW 1 SE, FL US	18920101	20220228	32.200	10a-2
USW00012841	ORLANDO EXECUTIVE AIRPORT, FL US	18920101	20220228	32.900	10a-2

One part of the answer lies in the frequency of the low temperatures. Using the refrigerator example, the annual low for a refrigerator is usually somewhere between 34F and 38F, but it is cold every hour of every day versus a few days as is common for Florida cold snaps. The question now is how often each station records temperatures below 20F, 30F and 40F. Knowing these metrics could shed light on why tropical palms in Orlando tend to perform better with only a minor difference in overall low temperatures.

The two stations above are difficult to compare as is because there is a gap in the data for KORL and there are individual records left blank for KBOW. A more valid comparison is made by using the nearby Lakeland Airport (KLAL) station to fill in the gaps at KBOW and the records at Orlando International Airport (KMCO) to fill in the missing years for KORL. Effectively, we are creating a composite station made up of data from similar stations to ensure a more complete set of records.

There are some numbers that jump off the page to answer our question. The first things to note is that the 30-year average is slightly reduced for both stations after this operation. Over the same period of time, the Bartow station has recorded temperatures below 30F and 40F on almost 50 and 300 more occasions than Orlando, respectively. These marks would explain the slight, but significant, differ-

ence in climate. On the flip side, Bartow is much more likely to have high temperatures over 40F and 50F, even with cooler nights. For palms that don't mind a cold night as long as they are followed by a rapid warmup, Bartow would have the more compatible climate. For palms where the frequency of chill has a greater effect, Orlando would be more suitable. Both stations have the same record low and are almost identical in the number of times they've dropped below 20F. When that happens, enjoy your Sabal collections!

COMP_ID	START YEAR	END YEAR	AIRPORT	AAL 30	AAL 30 ZONE	PRIMARY RECORD LOW	LOWS UNDER 20	LOWS UNDER 30	LOWS UNDER 40	HIGHS UNDER 30	HIGHS UNDER 40	HIGHS UNDER 50
BARTOW_01	1892	2021	KBOW	32.0	10a-2	18	3	208	2048	0	3	47
ORLANDO_01	1892	2021	KORL	32.6	10a-2	18	4	149	1749	0	7	108

For those present for the 1980s freezes, seeing Bartow and Orlando classified as USDA Zone 10a is surprising. The freezes of the 1980s have dropped out of the calculations as they are more than 30 years in the past. Imagine if we included them back in by expanding the range to 50+ years. Since both stations have data back to 1892, it's possible to go back 100+ years and watch the averages change over time.

COMP_ID	START YEAR	END YEAR	AIRPORT	AAL 30	AAL 30 ZONE	AAL 50	AAL 50 ZONE	AAL 100	AAL 100 ZONE	AAL ALL	AAL ALL ZONE
BARTOW_01	1892	2021	KBOW	32.0	10a-2	30.0	10a-1	29.3	09b-2	28.6	09b-2
ORLANDO_01	1892	2021	KORL	32.6	10a-2	30.8	10a-1	29.8	09b-2	29.3	09b-2

The chart above illustrates how both climates have become milder over time. There are palms, cycads, and other tropical plants in both locations that would have been thought impossible 40 years ago. It is now common to see large Royal Palms (*Roystonea regia*) and trunking coconuts bearing fruit in these locations.

Charts like the examples in this article often generate more questions than they answer. What about other areas of the state? Are there stations in my area? Is my garden in a warm spot or a cold spot? How much milder or cooler is my climate than it was decades ago?

Since the fall tour will begin in downtown Lakeland, potential attendees may have questions about this less frequently visited locale. How does the location of our fall tour compare to other locations? Are there really Sausage Trees (*Kigelia africana*) and Rainbow Euca-

lyptus (*Eucalyptus deglupta*) there? Is it possible to grow healthy *Trachycarpus fortunei* and fruiting *Cocos nucifera* in the same city?

The answers to these questions can be answered using the [2022_FloridaWeatherAlmanac.xlsx](#) file available for download at the link at the conclusion of the article. In this file, you can find weather statistics for individual stations and composite stations as well as tables showing the annual lows for each year and the percent of the year with viable records. The tables boast 368 individual NOAA stations and 332 composite stations from Florida. Download your copy today or view the data plotted on a map using the links at the end.

Additional Information:

Download [2022_FloridaWeatherAlmanac.xlsx](#) at the bottom of the following thread:

<https://www.palmtalk.org/forum/index.php?/topic/66320-florida-freeze-and-weather-station-data/>

View the spreadsheet data in on a map:

<https://tinyurl.com/yckytz2a>

January 2022 freeze damage reports and NWS data:

<https://www.palmtalk.org/forum/index.php?/topic/72092-january-2022-florida-freeze-report/>

Tentative Itinerary for the Fall Meeting in Lakeland:

<https://www.palmtalk.org/forum/index.php?/topic/73966-central-florida-palm-cycad-society-fall-meeting-sat-10222022/>



*The I-Drive Coconut in Lakeland had minor damage in the January 2022 cold snap. The *Adonidia merrillii* and *Wodyetia bifurcata* were undamaged.*

(Photo by Jeremy)

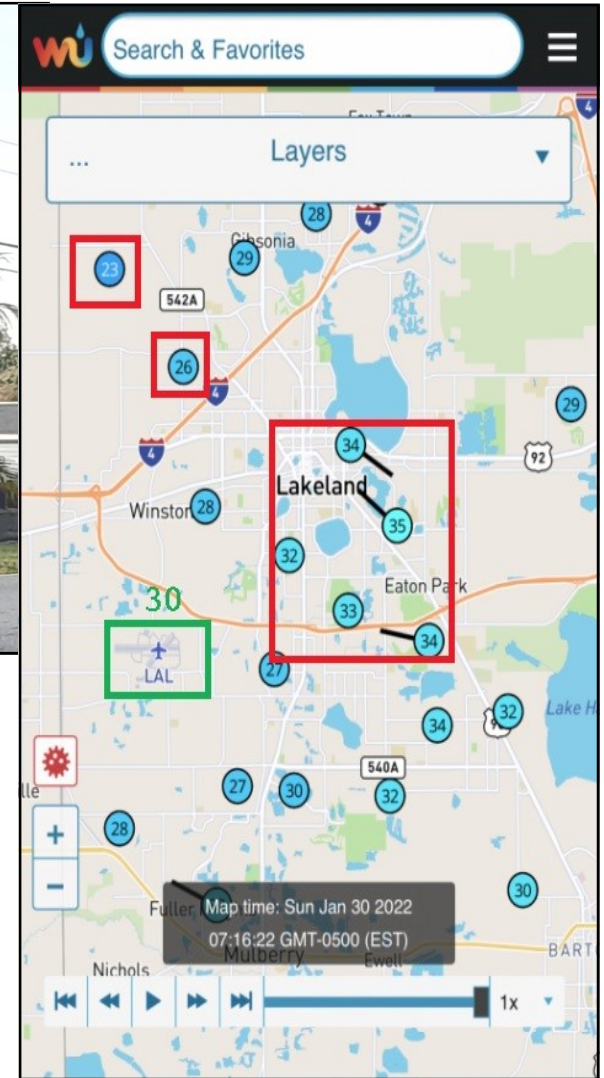


Below, fruiting Coconut and Trachycarpus in Lakeland.



The Smashburger Coconuts near Orlando Executive Airport (KORL) show little damage from the January 2022 cold snap. (Photos by Jeremy)

Map showing temperature reporting sites in Lakeland and vicinity.



The Next Dozen. . . Less Commonly Used “As Tough As Nails” Palms

By Dr. John Rossi
President, St. Johns
Botanical Garden

In northern Florida, the weather is quite unpredictable. You might be riding along in March thinking that it's been a mild winter, and then **WHAM!** Here comes that Polar Vortex feeling again! Because of that, many nursery owners sell only the, “tried and true,” (and sometimes boring) 12 species of palms. These include Chinese Fans, European Fans, Mexican Fans, Windmills, Needle Palms, Lady Palms, Pindos, Queens, Florida Sabals, Canary Island Date Palms, Silver Dates, and Mule Palms, (Queens x Pindos... for the newer

members). **Well, there** is a 13th palm, the Pygmy Date Palm, that is ubiquitous, but is not truly what we would call a hardy palm, even though they are small enough to place in protected areas, and they survive very cold temperatures in those areas. And then there are the indoor palms, like Majesty Palms and Cat Palms, which are so numerous and inexpensive that desperate palm lovers place them outside and cross their fingers! And they do okay in protected areas. **But how** about the next contenders for, “As tough as nails,” palms? Remember, at one time in Florida, the only rare

and exotic cold hardy palm was the Pindo! Allow me to suggest these for the next dozen:

1. Ribbon Palms, Australian Fan Palms, and other members of the genus *Livistona*. These appear to be cold hardy, drought resistant, disease resistant beasts that are hard to kill!
2. Blue Stem Palm, *Sabal minor*, in all of its glorious forms. Actually, it is a native species that is often ignored because of its small stature, but some of the forms get to

be a respectable size.

3. Super Mule Palm. This is an apparently indestructible hybrid of a Chilean Wine Palm crossed with a Pindo Palm, and that was crossed with a Queen Palm! Beautiful, graceful, disease resistant, drought resistant, and laughs at the cold!
4. High Plateau Coconut Palm, *Becariophoenix alfredii*, is a palm that is proving itself every year, even though some still don't “trust it” as a cold hardy palm.

That is not to say that a juvenile palm, out in the open at 25°F, with a hard wind and frost is going to make it. But neither will a young Queen Palm! Given a few years of growth, and a tiny bit of protection, these palms are similar to Queens in their cold tolerance. In addition, they are drought tolerant and seem to have few mineral deficiency issues.

5. Caranday Palm, *Copernicia alba*, is another “As tough as nails,” palm. In its native habitat it handles both drought and flooding, and for some strange reason

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Less Common "Tough as Nails" Palms

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it tolerates a tremendous amount of cold. It also does not seem to suffer from the mineral deficits in our native soils.

6. Bismarck Palm. Gorgeous silver blue palms that have seen 19°F, (6 specimens), and survived at the St. Johns Botanical Garden in Hastings, Florida, albeit with some pretty major leaf damage. At 25°F or above there will be little damage, and if there is leaf damage, they will recover quickly. They also are drought tolerant, and seem

to suffer few deficiencies in our native soils.

7. Cold Hardy Bamboo Palms, *Chamaedorea radicalis*, and *C. microspadix*. I call the former the Narrow Leafed Cold Hardy Bamboo Palm, and the latter, the Broad Leafed Cold Hardy Bamboo Palm. If you want a tropical look in a small space, these are the ticket!
8. Mountain Date Palm, *Phoenix llouireiroi*, and *P. I. pedunculata*, are worth trying. They are very tough, cold hardy palms that are drought tolerant. They ARE susceptible to mineral deficiencies in our soils, however. These are both small to medi-

um sized palms that are very beautiful.

9. Puerto Rican Hat Palm, *Sabal causiarum*, and many other sabal palms. As a genus, these are, "As tough as nails," cold tolerant, and drought tolerant. Lethal bronzing is, of course, a potential problem. The Puerto Rican Hat Palm is a particularly large, fast growing, and beautiful sabal. If you get enough sun, the blue leaved version of *Sabal uresana*, the Sonoran Desert Sabal, is a gorgeous addition to any garden!
10. Silver Saw Palmetto, *Serenoa repens*, is starting to become more popular, and is working its way into

more and more places. Although slow growing, it is worth the wait. There are now some that are so silver, they are almost white!

11. New Caledonian Palms appear to be really much tougher than we expected! In shaded and protected areas, which is where they occur in nature, they seem to thrive and tolerate a tremendous amount of both cool, and cold. *Cyphophoenix alba*, *C. elegans*, and *Burretio kentia hapala*, among other species from those genera, are doing well at the St. Johns Botanical

Garden, in Hastings.

12. Paradise Palms, *Lanonia dasyantha*, and other members of this genus also thrive in shaded conditions and tolerate a tremendous amount of cold. They are gorgeous fan leafed palms that scream the tropics, and have handled the low twenties (°F) with few problems. The similar appearing genus, *Licuala*, has a few pretty tough palms, as well, including: *L. spinosa*, *L. ramsayi*, and *L. peltata sumawongii*.

These are also palm for shaded, protected areas not usually hit by

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Less Common "Tough as Nails" Palms

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frost.

There are so many other palms that are also "As tough as nails," but not often chosen by "normal people," (non-palm fanatics): The Everglades Palm, *Acoelorrhaphes wrightii*, the Dwarf Sugar Palm, *Arenga engleri*, and many of its relatives in the genus *Arenga*; many species of *Butia*, especially *B. eriospatha*, and *B. paraguayensis*, are pretty tough, and the list goes on... And don't forget *Archontophoenix cunninghamiana*. And *Kerriodoxa elegans*! And *Kentiopsis pyriformis*! And *Leucothrinax morrisii*! And, and, and...! (I apologize if I have left out anyone's favorite,

"As tough as nails," palm.) **There are** currently about 350 species of palms at the St. Johns Botanical Garden awaiting the next cold wave in North Florida to test their mettle. Our research motto should be, **"We kill the (tropical) palms, so you don't have to."**

Becariophoenix alfredii, the *Mountain Coconut*.
(Photos by John Rossi)

Right, *Phoenix loureiroi*.



Left. *Lanonia dasyantha*.

From the Editor's Desk

Palm collectors are always on the lookout for a new palm, something that they don't have. The last time I looked, some months back, I discovered that all the *Kentiopsis* species had been re-assigned by the botanists to *Chambeyronia*. No new species at all, just new names.

However, there's good news: one new species has been described by Larry Noblick of Montgomey Botanical Center as the lead author: *Coccothrinax viridiscens*. Species in the genus tend to run small to moderate in height. So those of us with limited space might find room to squeeze it in. The oddity about the new species is that it has never been discovered growing in the wild and has been unknown to those who specialize in Caribbean palms.

The description is based on palms growing in gardens in the Miami area, particularly at Zoo Miami. Some of the new palms have produced seed that is difficult to germinate. So, dear reader, you can't immediately contact the usual sources of seed.

Maybe in a remote corner of Cuba overlooked by searchers, this palm is growing well and regularly producing seed. . . Wishful thinking? Of course.

Space is very limited in the garden of Castle Kennedy in Vero Beach. Even so, my son (younger and stronger with a shovel than his old dad) just planted *Bentinckia nicobarica*, a surprise offering by a vendor at Gardenfest in February.

The London Review of Books—issue dated 23 June—examines two recently published books on palm oil.

John Kennedy

*Another of John Rossi's recommended palms,
Butia eriospatha.*

PRESIDENT'S MESSAGE

We had a great turnout for our June meeting. We were thankful to be indoors with the outside temperatures in the extreme. Our meeting at Sugar Mill was spent identifying all palms and cycads currently in the garden. This is a first step in the planting and care of the Dent Smith collection.

Our next step is to compare this to what was actually growing at his nearby home. If you are interested in serving on the Dent Smith committee or in spending some volunteer time in the garden, please contact me.

Start planning for the October Meeting in Lakeland on Saturday, October 22. Our membership chair, Jeremy Evanchesky, has planned a very full day for us. Stay tuned for more information.

David Hall



PayPal Tutorial

Here is how to make a payment to CFPACS using PayPal

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

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 The Hills, TX 78738
 Regular membership,
 \$60, other levels of membership (including free),
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<http://palms.org>

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



Florida Torreya, the most endangered tree in North America growing at Dunlawton Sugar Mill Botanical Gardens.
 (Photo by Libby Luedeke)