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## Growing Palms in a Temperate Climate Principes Interview—Ralph Velez

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While looking at the color photo of a *Ravenea madagascariensis* var. *monticola* (Fig. 1) on the back cover of the January 1993 issue of *Principes*, I was awed by its beauty. More than beautiful, this palm is one of the many that has proven cold hardy into the mid to low 20 degrees (Fahrenheit) range. *R. madagascariensis* var. *monticola* is but one of several newly introduced palms that have added the entirely new dimensions of a genuinely tropical ambience in a temperate climate zone. But tropical cold hardy palms that survive quite nicely in temperate zones are not restricted to new arrivals. Some have been available for years. What hasn't been available heretofore is the know-how to raise, acclimatize, and plant these palms outdoors with a high expectation of their survival. The emphasis has always been on which palms will survive in a temperate climate utilizing tropical growing methods, rather than on how to grow and when to plant tropical and subtropical palms outdoors in a temperate climate. Forget conventional growing methods that work in the tropics. Practice what works in a temperate climate.

Growing cold hardy tropical palms in a temperate climate isn't difficult if you employ the basic concepts that have proven effective for a few California and Central Florida growers. Unfortunately, only a handful of growers possess this knowledge and without it, palm enthusiasts from temperate climates are universally restricted by self-imposed limitations on what they can grow and what they should try to grow in their gardens. Many don't even have greenhouses, or the ones they have aren't heated. Seldom are they growing any of the many exotic species that have proven cold hardy in California and Central Florida.

This is unfortunate because having a beautiful outdoor collection of exotic palms in a temperate zone can only be accomplished by someone who successfully practices the entire process of raising palms in a temperate climate. In the tropics, almost

anyone can obtain and grow the same palm species as anyone else. In a temperate zone you've got a far greater challenge, and if you're successful, you have a phenomenon that can only be duplicated by someone else with a similar knowledge of palm growing. The process is simple:

1. Raise the palms in a greenhouse heated by passive solar heat.
2. Protect the palms from cold during the winters and cold nights with active heat.
3. Grow the palms to the correct size before transferring them outdoors, and acclimatize them to sun and temperature for a specified amount of time before planting.

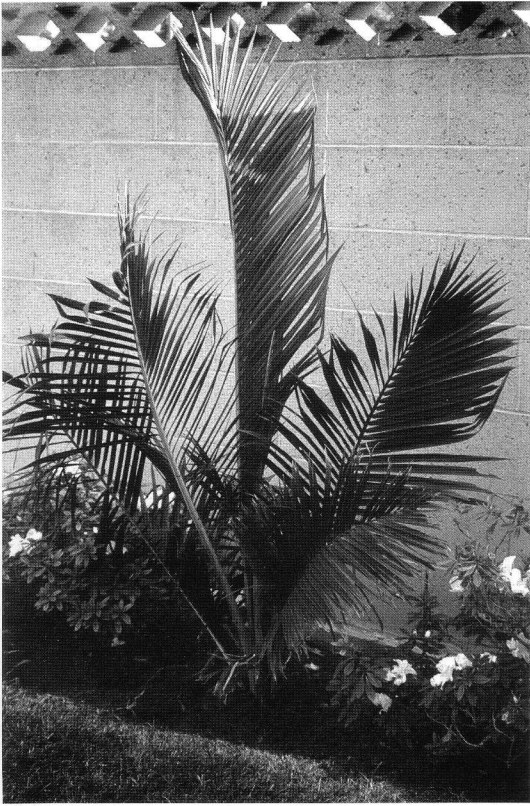
Ralph Velez has an excellent system for raising palms in a temperate climate and it shows in his extensive and beautiful collection. It occurred to me while conducting this interview with Ralph for the Southern California Palm Journal, that if temperate climate palm growers throughout the world were informed of Ralph's system through a *Principes* article, it would enable hundreds of temperate climate palm growers to develop beautiful exotic and tropical gardens. Ralph generously shares his system with us in this interview and if you live in a temperate climate, try Ralph's methods and some of the species that he has had success with. A list of over 200 palms that Ralph is presently growing outdoors follows at the end of this interview. And don't be afraid to experiment with new species. You will probably be amazed at what will survive, and how beautiful the palms look as they grow.

P.J.—Where are you from?

Ralph—New York, the Bronx to be exact.

P.J.—Why did you leave New York?

Ralph—I couldn't stand the winters. Even when I was a kid I couldn't stand the winters. I left when I was about 26, but I was ready to leave



1. *Ravenea madagascariensis* var. *monticola* in front of a wall.

when I was ten. I told all my friends that I wanted to live in Africa when I grew up.

P.J.—How did you happen to select California?

Ralph—I was considering Florida, but I kept hearing bad reports. I thought about Arizona, but I wasn't sure I wanted the hot desert heat. Puerto Rico beckoned, but there were no jobs. At that time, Southern California was the promised land. You know, "sunny Southern California," so I accepted a job offer teaching in Southern California and I've been with the same school district ever since.

P.J.—What do you teach?

Ralph—I teach art. I have also taught Spanish, Horticulture, and English as a second language.

P.J.—Were you disappointed in California?

Ralph—At first. It was drier and colder than I expected, and there was a six year period when my wife Nelda and I were going to move to a warmer climate, but we stayed.

P.J.—How do you feel about Southern California today?

Ralph—Today I'm very happy here, and I realize now that it's a wonderful place to grow palms as well as a wonderful place to live.

P.J.—What was the first palm you collected?

Ralph—My first palm was a *Chrysalidocarpus lutescens*, commonly known as an Areca palm. I went to Puerto Rico to visit Nelda and when I left I saw this Areca palm. I wanted to take it back to New York with me, but you can't bring back soil so I barerooted it and brought it back to New York in a plastic bag. I potted it up and it did just fine as a house plant.

P.J.—When did you first start growing palms?

Ralph—When I bought my house in 1966 I began planting tropicals. I couldn't see putting in pine trees and cypress and all of the other things that people were planting at the time. I started earnestly collecting as many palms as I could.

P.J.—How did you happen to become a member of the International Palm Society?

Ralph—At the time, I was more interested in the rainforest than in palms. I read everything I could about the rainforest, and in my research I located a book on palms by Desmond Muirhead which mentioned The International Palm Society. I joined The International Palm Society right away. I had about twenty palms at the time. My first meeting was at the Los Angeles Arboretum. There were palms that were only about two inches tall for sale on a table. I couldn't associate the names with the palms so nothing much happened psychologically at that meeting. The next meeting was at Ed Moore's place in San Diego. Ed had a fabulous collection and when I saw it, that did it! I became an avid palm enthusiast. Soon thereafter, Ken Foster began publishing the first ever Palm Society Newsletter. In the Newsletter there were ads selling palms. I began contacting people and collecting as many new palms as I could and I added 100 species to my collection in about a year. Most of the palms were in four inch containers and I began growing them up. I knew then that next I needed a greenhouse.

P.J.—When did you build your first greenhouse?

Ralph—The following year. It was actually a coldframe because it used only passive solar heat. It was just five feet tall because I didn't want it to show over the top of my cinderblock fence. To work in it upright, I dug a two foot trench down the middle. It was wonderful and the palms grew really well, but it was far too small so I tore it down and replaced it.

P.J.—What did you replace it with?

Ralph—I had seen two story greenhouses at some of the residences of other Palm Society members so I decided to build a two story greenhouse. It also included a heater so it was a greenhouse and not a coldframe. We'd had a mild winter the previous year, but I simply didn't want to subject my small palms to chance. I still have the greenhouse, and I have several mature palms in it. I refer to it as my big greenhouse, or my cooler greenhouse.

P.J.—Your cooler greenhouse! Does this mean that you have a warmer greenhouse?

Ralph—Oh yes! That's the small one upstairs.

P.J.—How did you happen to build the one upstairs?

Ralph—Well from time to time, I would give palms to a friend of mine and I would keep tabs on them as they grew because they came from me. It didn't take me long to realize that he was doing something that I wasn't because within a year or so, the palms that I gave him would be twice as large as the ones that I kept for myself. Each time I visited him I would ask him what sort of potting soil he used or how often he fertilized, but I could never figure out what he was doing that made his palms grow so fast. Finally I realized that his greenhouse created more heat than mine, and that the additional heat was what was making the difference.

P.J.—Created more heat! What do you mean?

Ralph—Greenhouse heat is a critical, but often a misunderstood concept for growing palms. When I say created heat, I'm referring to passive solar heat generated by the sun's rays when they become entrapped within the glass, fiberglass, or plastic sheeting that encases the greenhouse. Passive solar heat is the single most essential concept in growing lush vibrant palms in a greenhouse. This heat is strictly passive and I don't have to pay for it after the initial construction of my greenhouse. Passive solar heat shouldn't be confused with active heat provided by natural gas or electricity. Active heat is expensive, and I use it to keep the temperature from dropping below 70 degrees at night or during the winter.

P.J.—So a coldframe utilizes passive solar heat, and a greenhouse utilizes passive solar heat plus active heat?

Ralph—Exactly. And passive solar heat is 95 percent of growing palms and you can do a great job with just a coldframe. I remember growing tender palms in my first coldframe and they did

beautifully, but it's risky. One cold winter can set you back severely. The main function of active heat is to protect your palms from cold damage and slow growth during cold times of the year, particularly at night. You can utilize active heat in your growing process as well, but it's expensive.

P.J.—Is it adequate to use active heat just enough to prevent cold damage?

Ralph—Absolutely not. Preventing cold damage to palms is important, but it's more important to realize that even though the cold may not cause damage, it causes the plants to slow down in their growth or even stop, and then you have to deal with an extended start-up lag as well. When it comes to winter growing, my slogan is "thrive not survive." For instance, I try never to let the temperature drop below 70 degrees in my greenhouse, and I wouldn't ever consider letting it drop below 60. I just don't want the extended slow down in growth that the cold causes, let alone cold damage.

P.J.—Do you use double wall?

Ralph—Yes. It's simply a matter of pay now or pay more later and it's a big boost for palm growing, so it's a double bonus.

P.J.—How important do you think solar heat is in growing palms?

Ralph—It makes the most dramatic difference imaginable for tropical and subtropical palms. You want the palms to thrive in the winter and "explode" in the summer! For that you need between 88 to 93 degrees for as long as possible each day of the year and the longer you provide this warmth, the faster the palms grow. The faster they grow the bigger and stronger they become, and the better they acclimatize when you move them outdoors. The passive solar heat generated by my upper greenhouse is the key to my success.

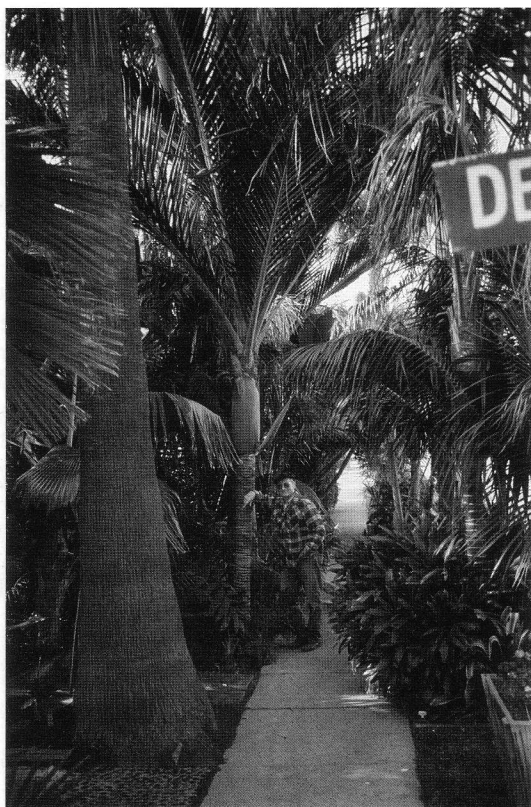
P.J.—Why a maximum of 93 degrees?

Ralph—In the tropical rainforests, it typically doesn't get above 93 degrees. Research indicates optimum palm growth is in the high 80s to low 90s. Over that it begins to stress the palms and slow down their growth resulting in a less robust plant. Palms don't need it hot, they need it warm, for as long as possible.

P.J.—How do you keep the temperature from exceeding 93 degrees?

Ralph—I have an exhaust fan and when it hits 93 degrees, it comes on automatically.

P.J.—You said that the length of time each day that your greenhouse stays warm is important?



2.- Ralph and *Rhopalostylis baueri*, one of his favorite palms.

Ralph—Yes. It's a simple formula. The longer it stays warm, the longer the palms grow.

P.J.—How long does your greenhouse stay warm?

Ralph—In the summer, my upper greenhouse heats to 90 degrees by about 8:30 to 9:00 A.M. and stays there until around 7:00 P.M. It even hits 90 degrees most days in the winter, but not for as long a period—generally from about noon until 2:00 P.M. I have to leave my shade cloth up year around. I tried taking it down, and the palms began to sunburn. And talk about rapid growth. I can't believe how quickly things grow in my upper greenhouse. And they move out and adjust well after I grow them to a good size.

P.J.—What's a good size to move them outside?

Ralph—I generally grow them to a five to seven gallon size and then move them out. After that, they're beginning to form trunk and I like to get palms outdoor acclimatized before they begin to form trunk. After that, they're difficult to accli-

matize. Smaller than five gallon, they're vulnerable to cold, and they still benefit tremendously from being in the greenhouse. They don't seem to acclimatize as well as when five gallon size.

P.J.—How do you acclimatize the palms from the greenhouse to outdoors?

Ralph—As a good five to seven, I move them outdoors and put them in filtered light for 30 days. Then I put them in direct sunlight for 30 days. After that they're ready to plant in the ground or continue to grow outdoors in containers until I sell them or plant them. Typically I bring out my greenhouse palms in March when the nighttime lows are consistently at about 48 to 50 degrees and plant them in the ground in July.

P.J.—Do you pot them up when you move them out?

Ralph—No. I don't like to move them out and pot them up at the same time so I'll pot them up and leave them in the greenhouse for another 30 days, and then move them out, or I'll move them out and pot them up about 30 days later. That way I avoid that double "pop."

P.J.—Which of those two methods works better?

Ralph—I've never really noticed a difference between the two.

P.J.—How often do you water?

Ralph—I don't believe you can overwater a palm. I water at least every other day.

P.J.—Do you have any special watering methods?

Ralph—Yes. I use a reverse osmosis system which purifies the water. I like it because the water in my area is high in mineral content, and leaves a whitish mineral buildup on the leaves after the water evaporates. With purified water, I can look at green leaves.

P.J.—How many species do you have in your garden at this time?

Ralph—I probably have about 215 different species in the ground at my house and around the neighborhood.

P.J.—How did you discover which palms would survive in your garden?

Ralph—Research, observations, asking questions, and trial and error.

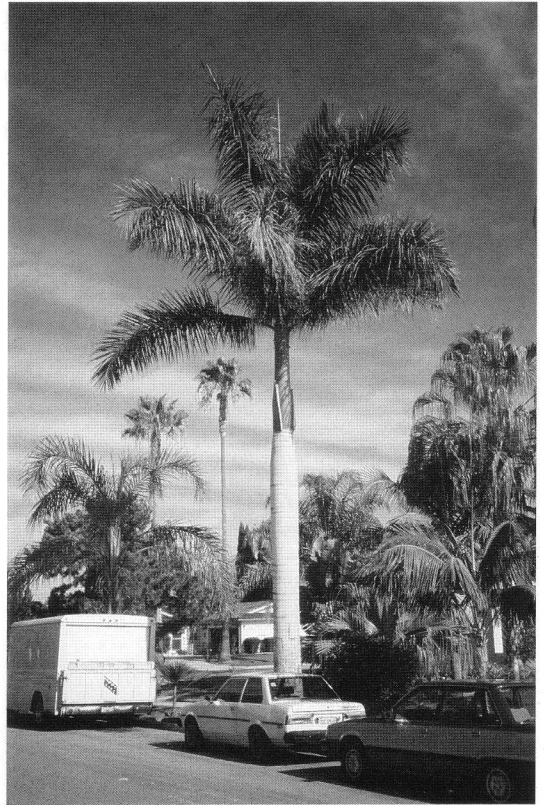
P.J.—What are some of your favorite palms?

Ralph—*Howea forsteriana*, *Rhopalostylis baueri* (Fig. 2), *Rhopalostylis sapida*, *Pritchardia*, *Rhapis humilis*, *Coccothrinax dussiana* and *Ravenea madagascariensis* var. *monticola* are a few of my favorites.





3. *Marojejya darianii* from Madagascar does well in California.



4. A handsome specimen of *Roystonea oleracea* near Ralph's property.

P.J.—How did you happen to wind up with a corner lot when you purchased your house?

Ralph—By accident, but I'm kind of glad it happened that way. It enabled me to plant a lot of palms in the parkways that I couldn't have done otherwise, and the house looks like a tropical island when I drive up.

P.J.—Do you like driving up to your house?

Ralph—I love driving up to my house! It looks so lush and tropical that it pleases me every time I see it.

P.J.—When were you president of the Southern California Chapter of The Palm Society?

Ralph—I was president for the past four years, before Phil Bergman took over.

P.J.—You've done some work at Orange Coast Plaza?

Ralph—Actually, Crystal Court. Both are owned by the Segerstrom family. I'm working with Anton Segerstrom on Crystal Court. Henry Segerstrom, his father, purchased the Vance palm collection

and moved it from Beverly Hills to the shopping center several years ago. The Segerstrom's were made complimentary members of The Palm Society because of their efforts in using palms at Orange Coast Plaza, and from that, they decided to expand on their collection.

P.J.—How many palms does Crystal Court presently have?

Ralph—When I started, they had 21, they now have 65. My job is to decide what to plant, where to plant it, from where to procure it, and to supervise the planting. I think it's becoming a fine collection.

P.J.—What are your future plans?

Ralph—I plan on retiring next January and I'm hopeful that I can start some sort of palm garden in Puerto Rico. I'll have to wait and see. I want to keep this house, but I want to get rid of a lot of my potted plants. I'd like to live in Puerto Rico in the winter time. In the winter, palms are so dormant in California that there's

not a lot of maintenance so I could get away during that time of the year.

P.J.—What advice do you have for new Palm Society members?

Ralph—Read all you can about palms. Attend The Palm Society meetings. Try to obtain a piece of property so that you will have enough room to

display the palms any way that you want to display them. I would recommend a minimum of one-half to three acres. I often wish I had more space, but then I like the rainforest look. Aside from that, start digging!

P.J.—Thank you Ralph.

*Appendix. Palms in the ground, July 1993 at Garden of Ralph Velez.*

Genera	Species	No. in Ground	Genera	Species	No. in Ground
<i>Acoelorrhaphe</i>	<i>wrightii</i>	1		<i>geonomiformis</i>	3
<i>Acrocomia</i>	<i>mexicana</i>	1		<i>glaucifolia</i>	1
<i>Aiphanes</i>	<i>aculeata</i>	1		<i>graminifolia</i>	1
	<i>lindeniana</i>	1		<i>klotzschiana</i>	2
<i>Allagoptera</i>	<i>arenaria</i>	1		<i>monostachya</i>	1
<i>Archontophoenix</i>	<i>alexandra</i>	1		<i>neurochlamys</i>	1
	sp. (purple crownshaft)	1		<i>pinnatifrons</i>	1
<i>Arenga</i>	<i>caudata</i>	1		<i>radicalis</i>	2
	<i>hookeri</i>	1		<i>sartori</i>	1
	<i>pinnata</i>	1		<i>schippi</i> var. <i>costaricana</i>	1
	sp. (dwarf)	2		<i>stolonifera</i>	1
	<i>undulatifolia</i>	1		<i>sullivanorum</i>	2
<i>Astrocaryum</i>	<i>mexicanum</i>	1		<i>tenella</i>	3
<i>Basselinia</i>	<i>eriostachys</i>	1		<i>tepejilote</i>	3
<i>Bismarckia</i>	<i>nobilis</i>	3		<i>tepejilote</i> (suckering)	1
<i>Borassus</i>	<i>flabellifer</i>	1		<i>tuerckheimii</i>	3
<i>Brahea</i>	<i>aculeata</i>	1	<i>Chambeyronia</i>	<i>macrocarpa</i>	5
	<i>armata</i>	1	<i>Chrysalidocarpus</i>	<i>ankaizinensis</i>	1
	<i>brandegeei</i>	1		<i>decipiens</i>	2
	<i>dulcis</i>	1		<i>lutescens</i>	1
	<i>edulis</i>	1		<i>madagascariensis</i>	1
	<i>elegans</i>	1		<i>madagascariensis</i>	1
	<i>nitida</i>	1		var. <i>lucubensis</i>	
	<i>hapala</i>	1		<i>pembanus</i>	1
	<i>vieillardii</i>	2		<i>rivularis</i>	1
	<i>capitata</i>	1		sp.	1
<i>Calamus</i>	<i>caryotoides</i>	1	<i>Coccothrinax</i>	<i>argentata</i>	1
<i>Calyptrogyne</i>	<i>ghiesbreghtiana</i>	1		<i>argentea</i>	1
<i>Calyptronoma</i>	<i>occidentalis</i>	1		<i>crinita</i>	1
<i>Carpentaria</i>	<i>acuminata</i>	1		<i>dussiana</i>	3
<i>Caryota</i>	<i>mitis</i>	1		<i>miraguama</i>	1
	<i>no</i>	1	<i>Copernicia</i>	<i>alba</i>	1
	<i>obtusa</i>	1		<i>prunifera</i>	1
	<i>ochlandra</i>	1	<i>Cryosophila</i>	<i>albida</i>	1
	<i>rumphiana</i>	1		<i>nana</i>	1
	<i>urens</i>	1		<i>warscewiczii</i>	1
<i>Ceroxylon</i>	<i>interruptum</i>	1	<i>Cyphosperma</i>	<i>balansae</i>	1
	<i>quindiense</i>	1	<i>Dictyosperma</i>	<i>album</i>	1
	sp.	1	<i>Euterpe</i>	<i>edulis</i>	1
<i>Chamaedorea</i>	<i>amabilis</i>	1	<i>Gaussia</i>	<i>attenuata</i>	1
	<i>arenbergiana</i>	1		<i>maya</i>	1
	<i>atrovirens</i>	1		<i>princeps</i>	1
	<i>concolor</i>	1	<i>Guihaia</i>	<i>argyrata</i>	1
	<i>costaricana</i>	1	<i>Hedyscepe</i>	<i>canterburyana</i>	2
	<i>deckeriana</i>	2	<i>Heterospathe</i>	<i>delicatula</i>	1
	<i>elegans</i>	1	<i>Howea</i>	<i>belmoreana</i>	3
	<i>ernesti-augusti</i>	1		<i>forsteriana</i>	15
	<i>falcifera</i>	1	<i>Hyophorbe</i>	<i>indica</i>	1
	<i>flavovirens</i>	1		<i>lagenicaulis</i>	1

## Appendix. Continued.

Genera	Species	No. in Ground	Genera	Species	No. in Ground
	<i>vaughanii</i>	1	<i>Ptychosperma</i>	<i>caryotoides</i>	1
	<i>verschaffeltii</i>	1		sp.	1
<i>Hyphaene</i>	<i>crinita</i>	1		<i>elegans</i>	1
<i>Johannesteijsmannia</i>	<i>altifrons</i>	1		<i>microcarpum</i>	1
<i>Jubaea</i>	<i>chilensis</i>	1	<i>Ravenea</i>	<i>madagascariensis</i>	3
<i>Jubaeopsis</i>	<i>caffra</i>	1		var. <i>monticola</i>	
<i>Kentiopsis</i>	<i>oliviformis</i>	1		<i>rivularis</i>	3
<i>Kerriodoxa</i>	<i>elegans</i>	1			1
<i>Laccospadix</i>	<i>australasica</i>	4	<i>Reinhardtia</i>	<i>gracilis (gracilior)</i>	1
<i>Latania</i>	<i>lontaroides</i>	1		<i>gracilis (rostrata)</i>	1
	<i>loddigesii</i>	2		<i>simplex</i>	1
	<i>verschaffeltii</i>	1	<i>Rhapidothylum</i>	<i>hystrix</i>	1
<i>Lepidorrhachis</i>	<i>mooreana</i>	2	<i>Rhapis</i>	<i>excelsa</i>	1
<i>Licuala</i>	<i>elegans</i>	1		<i>humilis</i>	2
	<i>ramsayi</i>	2		<i>excelsa</i> "koban"	1
	<i>spinosa</i>	3		sp. (variegated)	1
<i>Linospadix</i>	<i>apetiolata</i>	1		<i>subtilis</i>	3
	<i>minor</i>	1	<i>Rhopalostylis</i>	<i>baueri</i>	6
	<i>monostachya</i>	1		<i>sapida</i>	5
	<i>palmeriana</i>	1	<i>Roystonea</i>	<i>altissima</i>	2
<i>Livistona</i>	<i>australis</i>	1		<i>borinquena</i>	1
	<i>benthamii</i>	1		<i>elata</i>	1
	<i>carinensis</i>	1		<i>oleracea</i> (Fig. 4)	1
	<i>chinensis</i>	1		<i>regia</i>	2
	<i>decipiens</i>	2		<i>venezuelana</i>	1
	<i>drudei</i>	1	<i>Sabal</i>	<i>blackburnia</i>	1
	<i>mariae</i>	1		<i>causiarum</i>	1
	<i>muelleri</i>	1		<i>etonia</i>	1
	<i>saribus</i>	1		<i>mauritiiformis</i>	4
	sp. (F.T.G.)	1		"Riverside"	1
<i>Lytocaryum</i>	<i>insignis</i>	1		<i>rosei</i>	1
	<i>weddellianum</i>	1		sp. (large leaf)	1
<i>Marojejya</i>	<i>darianii</i> (Fig. 3)	1	<i>Schippia</i>	<i>uresana</i>	1
<i>Nannorrhops</i>	<i>ritchiana</i>	1	<i>Serenoa</i>	<i>concolor</i>	1
<i>Neodypsis</i>	sp.	1	<i>Syagrus</i>	<i>repens</i>	1
	<i>baronii</i>	1		<i>amara</i>	1
	<i>leptocheilos</i>	1		<i>coronata</i>	1
	<i>decaryi</i>	2		<i>flexuosa</i>	1
	<i>tsaratananensis</i>	1		<i>oleracea</i>	1
<i>Normanbya</i>	<i>normanbyi</i>	2		<i>romanzoffiana</i>	6
<i>Oraniopsis</i>	<i>appendiculata</i>	1		<i>schizophylla</i>	1
<i>Parajubaea</i>	<i>torrallyi</i>	1	<i>Synechanthus</i>	<i>fibrosus</i>	1
<i>Phoenix</i>	sp.	1		<i>warszewiczianus</i>	1
	<i>reclinata</i>	2	<i>Thrinax</i>	<i>excelsa</i>	1
	<i>roebelenii</i>	1		<i>parviflora</i>	1
	<i>roebelenii</i> × <i>reclinata</i>	1		<i>rex</i>	1
	<i>rupicola</i>	3	<i>Trachycarpus</i>	<i>fortunei</i>	1
<i>Pinanga</i>	<i>coronata</i>	1		<i>martianus</i>	1
	<i>elmeri</i>	1		<i>takil</i>	1
<i>Prestoea</i>	<i>montana</i>	1	<i>Veitchia</i>	<i>arecina</i>	1
<i>Pritchardia</i>	<i>affinis</i>	1		<i>joannis</i>	1
	<i>beccariana</i>	1		<i>sessilifolia</i>	1
	<i>gaudichaudii</i>	1	<i>Vonitra</i>	<i>utilis</i>	1
	<i>hillebrandii</i>	1	<i>Washingtonia</i>	<i>robusta</i>	6
	<i>remota</i>	1	<i>Wodyetia</i>	<i>bifurcata</i>	2
	sp.	2	<i>Zombia</i>	<i>antillarum</i>	1
	sp. (no. 2)	1			