

The Palm Society

Bulletin No. 4

April, 1956

Please address communications to the editor:
Dent Smith, 2514 S. Peninsula Drive, Daytona Beach, Florida

Notice of Meeting

It is now definite that our organizational meeting, for the main purposes of adopting a constitution and by-laws and of electing officers and directors, will be held at 2:00 p.m. on the 17th day of April, 1956, in the Garden House at the Fairchild Tropical Garden, Coconut Grove, Florida. No other notice of the meeting will be sent. We are assured of a quorum (50% of all the members, present in person or by proxy) by the fact that over half of the members have sent in their signed proxies.

Before and after

Mrs. Lucita H. Wait advises that a luncheon will be served in the Garden House at 12:30 p.m. on the 17th for any members who may be at the Garden on that day, at a nominal cost to each. So that due preparations may be made, it would be much appreciated if everyone expecting to be on hand will so notify her. Please address Mrs. L. H. Wait, Fairchild Tropical Garden, P. O. Box 407, Coconut Grove, Fla. A postal card will do.

It is suggested that members wishing to join a group or groups to have a look at some of the palms in the vicinity, meet just inside the Garden entrance at 10:00 a.m. on the 17th.

Mr. Walter Hargert, after inquiring from motor courts nearest to the Garden about accommodations and rates, sends us the following information for the benefit of those who may need overnight accommodations:

Riviera Courts Motel, South Dixie Highway, Coral Gables (A Superior Court).
Tel. Mohawk 7-8368. Hotel rooms \$7.00 to \$10. Studio apartments \$9.00 to \$11.

University Court Motel, 1390 South Dixie Highway, Coral Gables (A Quality Court).
Tel. Mohawk 7-2437. Hotel rooms \$9 to \$11. Studio apartments \$11 to \$13. Swimming pool.

If accommodations are unobtainable at the above two courts, the next nearest would be:

Crandon Court, Key Biscayne, Miami (A Quality Court). Tel. Miami 81-42311.
Hotel rooms \$11. Apartments \$13.50. Swimming pool. This motel is several miles further away from the FTG.

Rates in all three are based on double occupancy. April is still a busy month for tourists, so it is best to make reservations as soon as possible. The first two motels mentioned are close to the University of Miami.

We are greatly obliged to both Mrs. Wait and Mr. Hargert for their thoughtfulness, and it is certain to be appreciated.

Progress of the Society

As of March 29, 1956 we had 124 members. The average rate of increase is about one a day. We now have members in 8 states and in 8 foreign countries or colonies.

Over 20% of the members live in California. This is a fact not only indicative of interest in the palms but of interest in them to a remarkable degree. If it is harder to grow some palms in that state, this constitutes a challenge which the Californians intend to meet head on. They will conquer many of the problems, for they have an unquenchable enthusiasm. This is evinced in most of their letters to the editor of the Bulletin. They have already put Florida to the blush with their mighty Jubaea and the fine ornamental Erythea. It is a safe prediction that they will grow a great many more kinds of palms than are to be found there now. Plans are afoot to develop a Palmetum at Mission Bay Park in San Diego. It takes little imagination to see even the kingly Royal palms flourishing there. And why not? San Diego never experiences as much frost or sharp cold as some areas in Florida where Roystonea is grown to perfection. SAN
DIEGO

Binders for these papers

The bulletins have not been punched or drilled for preservation in post binders because it seemed doubtful that the present format would be long continued. It is impossible to say now just when we can make the switch from mimeographed to printed papers. Very likely the Society would need at least 1,000 members to make the change economically practical. In the meantime anyone wishing to preserve the papers may obtain at stationery stores a so-called Punchless Paper Holder, No. 118 $\frac{1}{2}$ -R, Advanco brand. This gadgetized binder holds up to 100 sheets of letter-size paper and is just the right thing for preserving these bulletins.

Mailbag

If some of the editor's correspondents wonder why their suggestions have not yet been acted upon, it is because he has been kept hopping just to answer the letters. And if he sometimes answers with a postal card, it is not to save one cent but is because he wishes to give the courtesy of a prompt acknowledgment. Most of the suggestions seem meritorious, but there simply has not been enough time to act upon them.

There have been sundry requests for information on the culture of palms - of palms generally and of certain kinds of palms. It is well within our province to publish such information, in the form of articles or even fragmentary notes, when and if the members will contribute it.

Three letters ask for information about the germination of palm seeds. Well, there is no set procedure, but some have had more success than others. We are not soliciting a definite work on germination, but will some of the members who have studied it tell us of their results?

One letter contains the suggestion that the full addresses of the members be added to the names in the published roster. This can be done when the membership becomes somewhat stabilized instead of in a state of constant change as at present. When the time comes to embark upon it, attention will be called to the fact that any request to exclude an address will be respected.

Two letters contain the suggestion that the members' interest in the palms be indicated by a symbol following their names, as N for nurseryman, B for botanist, C for collector, &c. It is not without merit, but it presents a number of difficulties, the major one being the task of getting all the members to classify themselves, which would not be made easier by the fact that a good number are unclassifiable. "Collector" means two entirely different things, viz., one who collects for a living collection, and on the other hand, one who "collects palms," i.e., parts of a palm, for herbarium material. This matter will be left in abeyance till we see more light.

A large assortment of other suggestions, more or less meritorious, has come to hand, but more letters have centered upon the exchange of palm seeds than upon anything else. The Society itself cannot undertake correspondence about seeds, much less to receive, handle, pack and ship them, but it can assist the interested members by publishing a Seed-Exchange List, or better yet, a Seed-and-Plant Exchange List, containing the names and addresses of those members. They can correspond among themselves, and no doubt will achieve their ends if they persist. If you wish your name placed on such a list, please notify us and we shall try to send it out as often as need be. To get the thing started we print below excerpts from a few letters.

From Mr. J. Marnier-Lapostolle, 91 Boulevard Haussmann, Paris VIII^e, France. ". . . I am very interested in Palm trees and am owner of a very large collection of them in my Garden in the South of France. I would like to have exchanges with your members and would be happy to send various seeds to the Society."

From Mr. Kan Yashiroda, Yashiroda Junkaen (The Acclimatization Garden), Tonosho-Kyoku, Kagawa-Ken, Japan. "I am very much interested in study and culture of palms. Our Sabals, Washingtonias, Butia spp., and others are fruiting abundantly. If you refer to Gardening Illustrated (England), January 1954 number, you will find my discussion on Trachycarpus spp. If you could spare for me some fresh seeds of Jubaea spectabilis, Livistona australis, Sabal Blackburnia (umbraculifera), Elaeis guineensis, and particularly some tall, slender-trunked Cocos spp. (Butia), I should be glad to send you ours in return."

From Mr. Walter R. Lindsay, Box 1124, Ancon, Canal Zone. "We have a fair collection of palms in our Experiment Gardens and elsewhere in the Canal Zone and are always glad to exchange seeds with others."

From Mr. Nat J. DeLeon, 8300 S. W. 62nd Place, South Miami, Florida. "I thought that, since most collectors could not possibly use all the seeds sent them, through trading we could reduce the more difficult task of obtaining seed from foreign sources. This, of course, would be up to the interested parties involved. Have any collectors that you have come in contact with expressed such a desire?" They have.

From Dr. Patricio Ponce de Leon, Director, Jardin Botanico, Carlos III e Infanta, Havana, Cuba. ". . . I also offer my cooperation in supplying seeds of Cuban palms to the members of the Society interested in obtaining them."

Another letter touches on plants rather than seeds, and involves a project worthy of assistance from some of us. It is from Mrs. Grace Newman, P. O. Box 444, Fort Myers, Fla. "For the past year I have been seeking a source of supply of rare palms. I belong to a garden club which has as its project the planting of rare and unusual palms. The City has given us a plot on which to plant them. The City will

also take care of the palms after planting. Mr. Jordahn of the Montgomery Gardens drew up our plan and gave us a list of palms we should include. So far we have not been able to locate the following: *Heterospathe elata*, *Arenga saccharifera*, *Latania Verschaffeltii*, *Butia capitata*; also other species of *Butia* and *Thrinax* other than *parviflora*, as well as species of *Zamia*." Please aid Mrs. Newman if you can.

And one other, out of many probably forgotten, Mr. Norman A. Reasoner, Reasoner's Tropical Nurseries, Box 828, Bradenton, Fla., desires seeds of *Chamaedorea erumpens*.

Old-timers

Among the members of this Society who have had long experience in growing palms, are Mr. and Mrs. A. C. Langlois of Nassau, Bahamas. Starting from scratch about 1930 they now have one of the very few great private collections of palms in the world, "the result of a magnificent enthusiasm, without the benefit of any society, but with the support and kindly assistance of good friends like Dr. David Fairchild, David Barry, Jr., Mrs. Archbold, the Fairchild Garden, Mr. Reasoner, Mr. Loomis, etc." They made collecting trips to Central America and elsewhere, sowed seeds with astonishing patience and faith, and today many majestic palms, rare or unheard of in most collections, lord it over the coppice hardwoods in a naturalized setting. They have what they have despite enormous difficulties, such as insufficient rainfall, an endless battle with encroaching tree roots, solid rock overlain with thin soil or with virtually no soil at all, and the usual complement of other difficulties familiar to other growers. All of which is to tell you something about Mr. Langlois, the author of the following article.

New Palms

In considering hardy palms, resistance to low temperatures has often led palm lovers to collect from the high elevations of the tropics, usually resulting in failure. The remarkable Wax Palm, *Ceroxylon andicola*, and other species, have very probably failed in cultivation owing to the lack of dampness and continual moisture native to the mountainous regions where *Ceroxylon* is found. The genera *Euterpe*, *Hyospathe*, *Morenia*, where found at high elevations, have proved unsuccessful when brought down to lower and dryer levels.

The cold usually experienced at low elevations in northern latitudes is dry - if freezing, very dry. The mountain palms will suffer in consequence. The sun and wind will add to the difficulty, so that a very large, moist, cool conservatory may be required to achieve a degree of success. However, the growing of palms in the grand manner of the Mid-Victorians is now past, and we might seek new species or genera which have better chances of reaching ultimate maturity.

I have often wondered if new palms from South America, as yet untried in cultivation, might prove rewarding. My premise in making this suggestion arises out of the more or less accepted rule that a dwarf palm, plant or animal is probably hardy if the reduction in size is the result of survival under unfavorable conditions. If my premise is correct, let us consider for a moment J. Barbosa-Rodrigues's "Palms of the Matto Grosso", 1898. Here we have palms near the southern limit of natural distribution. In Paraguay and the extreme South of Brazil, the following palms are noted:

<i>Syagrus petraea</i>	(Brazil)	<i>Acanthococos Hassleri</i>	(Paraguay)
		<i>Syagrus lilliputiana</i>	"
<i>Scheelia princeps</i>	"	" <i>campicola</i>	"
var. <i>corumbaensis</i>	"	" <i>amadelpha</i>	"
<i>Orbignya campestris</i>	"	" <i>camphylospatha</i>	"
" <i>macrocarpa</i>	"	<i>Diplothemium Hasslerianum</i>	"
" <i>longibracteata</i>	"	" <i>Anisitsii</i>	"
<i>Astrocaryum echinatum</i>	"	<i>Scheelia Anisitsiana</i>	"
" <i>campestre</i>	"		

The list might be extended considerably. The smaller dwarf palms such as these resulted from dry seasons, cool or chilly conditions, sandy soils; they are generally survival genera and species which have reached magnificent proportions in the forests of middle Amazonia. It is my conviction that these dwarf palms will prove not only hardy, but under favorable conditions of growth may lose some of the dwarf characteristics while yet retaining a resistance to cool, dry winds and possibly light frosts. At the worst they should make fine tub specimens.

To travel elsewhere, the following palms appear to have survived under unusually cold conditions: *Livistona Mariae* (Victoria, Australia), *Jubaeopsis caffra* (South Africa), *Livistona decipiens*, *Hyphaene* species, *Phoenix* species, *Caryota* species, *Wissmannias* (Arabia). Few of these hardy palms are in cultivation. The *Wissmannia*, for instance, is still in the Aden Protectorate a hardy palm surviving under conditions of intolerable heat, but with water at the foot, like the Date (Phoenix). The Date in many species has survived under sub-tropical conditions mainly because of the xerophytic type of leaf; transpiration is curtailed, the loss by frost is reduced, and for these reasons the palms which survive along river courses, or in an oasis, such as Phoenix, *Hyphaene*, *Erythea*, etc., appear to stand cold with every chance of survival.

Diplothemium maritimum has proved hardy in the Riviera. It is not considered anything special, but may be rewarding if tried under good cultivation. Here the word "maritimum" gives the clue to survival qualities. The proximity of the sea, sand dunes, salt, are all factors that spell hardiness and resistance to harsh conditions. Under such conditions our poorly represented *Thrinax* and *Coccothrinax* palm genera thrive.

The genus *Rhapis*, many species of which are as yet not in cultivation, has proved hardy.

An old but beautiful palm, now virtually out of cultivation in Florida, is the *Acrocomia Total* of Bolivia. The incomparable blue of the leaves and its adaptability to most soil conditions picked it for Florida. No fruiting specimens, however, have survived. It should be re-introduced.

The *Butia Yatay* is missing. Why, I cannot say, but it should be a hardy palm, so many of the *Butias* being hardy.

Many palms are confined to islands. Of these the *Pseudophoenix Sargentii* (Hog or Buccaneer Palm) is a very fine example. Four or five species of *Pseudophoenix* exist, though only one is common. The finest, *P. vinifera*, apparently refuses to set seed at Chapman Field. It is a truly magnificent palm. Others are to be found on Navassa Island. The *Ponapea* palm, unknown to cultivation, comes from a small Pacific island of that name. The venerable "*Juania australis*" from the Island of Juan Fernandez (Robinson Crusoe's island) seems lost to cultivation; its adaptability and resistance to harsh conditions are undoubted, but seeds are very hard to obtain and it is reported almost extinct on its own island.

An island which may have more palm surprises than we wot of is Madagascar. This island has a magnificent list of endemic genera, mostly small palms recalling Chamaedoreas and Geonomas, and yet different. Palms of the island available in this half of the world are notable successes, for instance Chrysalidocarpus lutescens and C. madagascariensis. These are most important and valuable in horticulture, but what about the following? Acanthophoenix rubra, Adelodypsis species (2), Chrysalidocarpus species (4 not in cultivation), Neophloga species (30 or more), Phloga species (2), Neodypsis species (10 or more), Ravenea madagascariensis and 6 or more other R. species, and of Dypsis many species. There may have been failures in cultivation, yet to our knowledge these palms have not been seen or heard of in any of the Florida and West Indian botanic gardens except one new palm in the Fairchild Tropical Garden, Miami, under the name of Neodypsis Decaryi.

In conclusion I should like to submit for possible introduction the following still obscure palms: Linospadix monostachys (Australia), Loccospadix australis, Licualas from Indo-China, and Chamaerops cochinchinensis. All are probably tender, except the Chamaerops which may stand cold spells, or so Gatin claims for southern France.

I almost forgot David Barry's *Caryota ochlandra*, from China, which he claims is hardy and of easy culture. This genus is conspicuously successful without ex-
Like Wallichii? or Oranga?
Bull. 5
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It may be assumed that seeds of the palms mentioned in this commentary will be viable under reasonable shipping circumstances. Charcoal dust would be preferable, and no moist packing. Otherwise germination may take place in transit. The assumption that the hardy palm has hardy and long-viable seed is probably correct in most cases.

Nassau, Bahamas
February, 1956

A. C. Langlois

Expedition to Cuba

Early in March of this year we went to Cuba to have a look at the palms. The party, made up of Mr. Stanley Kiem, Mr. Ray Vernon and this writer, rented a Hertz car and covered a fair amount of ground in nine days. Only a fair amount because we tarried several days in one place and besides the island is big.

The native palms are in some cases intermixed and in others live in isolated areas widely separated one from another. One would have to travel 2,000 miles or more to reach every palm station even though the island is less than 800 miles long. Palms of one kind or another grow at both extremities of the island, along both coasts, on the mogotes and on the mountains, in the savannas and swamps and, in fact, everywhere except near the crests of the highest mountains. Brother León, in "Flora de Cuba", lists 14 genera indigenous to the island, and this number excludes Cocos nucifera for which positive proof is lacking as in Florida. Of Coccothrinax and Copernicia alone, he lists 20 species of the former and 22 of the latter, and also many varieties among both; so there was hardly time to see more than a very few kinds of the great many wild palms. Some of those we did see from the highway between Havana and Trinidad and between Havana and Pinar del Río were as follows:

ROYSTONEA REGIA. Nothing imposes itself upon the traveler so much as the great numbers of Royal palms. They predominate even from the air, before the plane lands at Havana. They grow in the valleys, on the plains, on the mountains and even high on steep hillsides where, theoretically, they should not grow at all because of excessive drainage. They grow to great heights in pure stands and as individuals, and in association with hardwoods or *Sabal parviflora* and other palms.

León recognizes 4 species of *Roystonea* in Cuba, plus one variety, pinguis, of *R. regia*. We did not attempt the difficult, or rather impossible, task of identifying the species from below. To us they were all Royal palms, and we did well to let it go at that.

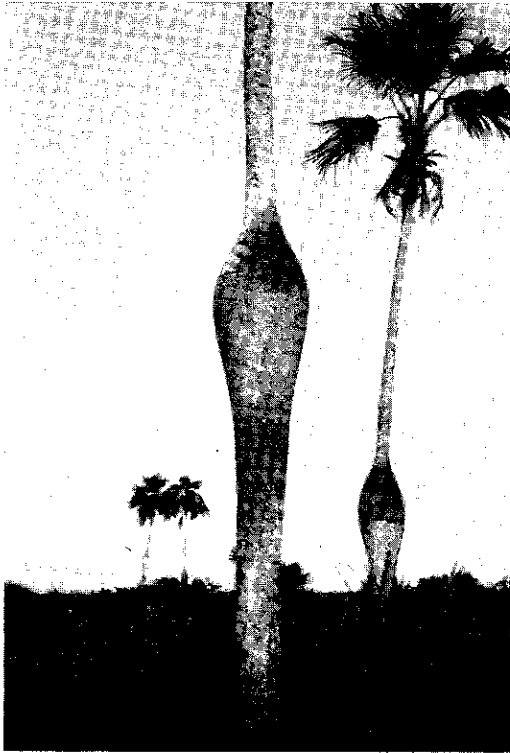
In the United States the tendency is to think of Royals as having cylindrical columns for trunks, and they are sometimes so described in the literature. In Cuba only the immature Royals have the trunk cylindrical, whereas the eighty and hundred-footers have trunks that bulge considerably at varying heights and the top of the bole is quite slender in proportion to the lower parts. The swellings vary so much from tree to tree that León describes the trunks as "more or less fusiform," which means spindle-shaped.

One cannot fail to notice that several Cuban palms have much swollen trunks, varying from fusiform to ventricose. In *Colpotherinax Wrightii* this swelling is so pronounced as to make the tree one of nature's strangest freaks (see the illustration on another page). *Acrocomia armentalis* is another endemic "belly palm" that runs *Colpotherinax* a close second for grotesqueness. *Pseudophoenix Sargentii*, when old, has a strikingly fusiform trunk, and so does *Gaussia princeps*. The cause of the swellings in so many of the Cuban palms is matter for conjecture, though recurring dry seasons may have some bearing.

SABAL PARVIFLORA. The first wild *Sabal* palms we saw from the highway were growing in savanna pastures between Cascajal and Manacas. At a distance these trees resemble *Sabal Palmetto*, but on closer approach the trunks show up as stouter, smoother, gray to whitish, the leaf bases soon shed. The leaves seem fewer and stiffer. The leaf crown has a "different" look, and the inflorescences do not project from it. This is a medium-height tree, seldom attaining to much more than half the 80-foot height reached by *S. Palmetto* in some parts of Florida. Here the trees grew sparsely in association with a few small *Coccothrinax* palms.

COPERNICIA TORREANA. At another point we saw from the highway a hundred or more stragglers of this odd species, none of them very tall. The fan leaves are quite devoid of petioles, which makes a great oddity of this palm; after dying they remain folded downward in thick mats, after the manner of the *Washingtonia* skirts though not so vertically hanging. A curious and interesting plant, but not in the least an elegant or beautiful one. Repeated fires had changed the normal appearance of the palms, burning away the skirts and leaving the blackened trunks visible.

COLPOTHRINAX WRIGHTII. We saw only an occasional "palma barrigona," or belly palm, until we took the road from Pinar del Río to Coloma. Not far south of the former place a few of these jocular trees dotted the plain and presently the numbers increased. On the east side of the road old palms were scattered about, some of them leaning above the bulge in such a way as to suggest giraffes; and on the west side was a dense growth of young trees forming a large scrub. A peasant who emerged from a thatched cottage informed us that thatch made from the leaves of *Colpotherinax* lasts 20 years, or more than twice as long as those of *Sabal* and *Roystonea*. The trees about the dwellings are commonly robbed of their leaves for thatch, but elsewhere in Cuba the *Sabals* and *Royals* get the same treatment.



Native Cuban palms in the wild, Photos by Stanley Kiem.

Upper left: *Colpothrinax Wrightii*, near Pinar del Rio. Upper right: *Gaussia princeps*, on mogote in Viñales Valley. Lower left: *Copernicia Torreana* in Matanzas Province. Lower right: *Roystonea regia*, near Esperanza.





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Cultivated palms at Atkins Garden. Photos by Stanley Kiem.

Upper left: *Livistona Mariae*, L. *altissima* in background.

Upper right: *Copernicia Baileyana*.

Lower left: *Livistona subglobosa*. Lower right: Cluster of *Guilielma utilis*.



Beccari stated that our palm is definitely and inescapably a *Pritchardia*, and formally classified it as such when he and Rock monographed the genus *Pritchardia*. Whether well founded or not, it is an engaging and challenging belief, for the presence of *Pritchardia* in Cuba thousands of miles removed from the nearest species of that genus, defies all the knowledge so far gained about the distribution of palms. In our next bulletin we shall reprint Becarri's general discussion of the genus *Pritchardia*, in the course of which he dwells at some length on the palm we term *Colpothrinax*.

PAUROTIS WRIGHTII. Clumps of this palm were growing in the same vicinity with the *Colpothrinax*, but most of them thereabouts have already been sacrificed to make fence posts of the slender stems. The remaining specimens were unimposing. Our native informant called this palm "guano prieto," and said we would find more of them, and bigger, nearer the coast. We skipped it, as also his pleas not to leave the area without viewing some awe-inspiring operations in tomatoes.

GAUSSIA PRINCEPS. We saw it in considerable numbers in the Viñales Valley, growing mostly on the limestone mogotes, perched on niches in the cliffs or, even more precariously, rising from crevices in the rocks of sheer walls. One would think that it needs no soil or moisture for its growth and existence, but the surmise would have to allow a token minimum of both for its survival. Its trunk is cigar-shaped from near the ground to a height of 8 to 12 feet, then the upper end of the cigar is protracted as a slender neck which is surmounted by a very sparse crown of small plumose leaves, sometimes only three or four. This palm to be sure is remarkable enough in its way, but it would hardly fill the bill as an ornamental. In this respect it is even more of a disappointment than its Porto Rican relative, *G. attenuata*. That it should belong to the same plant family as the magnificent Royal palm seems odd enough, for to compare the two would be like comparing a cockroach with an eagle. Wendland, nevertheless, thought this cigar with its frayed-out feather duster was a prime beauty, for he made no scruple of naming it princeps.

We saw, hither and yon, only several trees of *Acrocomia armentalis*, a fair number of *Coccothrinax* Miraguama, a very few other *C.* species and at the most 3 or 4 *Copernicia* species. We saw many more of the native palms growing under cultivation at the Atkins Garden than we saw in the wild.

The commonest exotic palm in Cuba is the *Chrysalidocarpus lutescens*. One or more clusters grow in almost every dooryard. Instead of enormous lush plants, they are in the main small or insignificant. They could of course be cultivated as fine specimens, but why speculate on the reasons for the reverse being so?

Atkins Garden

This institution, an independent department of Harvard University, maintains one of the greatest tropical gardens in this hemisphere. Besides various projects concerning plants having some bearing on the economy of Cuba, a great deal of attention is paid to ornamentals and large sections of the garden are occupied by them. Visitors are welcome to roam about the garden, located about 10 miles beyond Cienfuegos, and no lover of the palms should miss an opportunity to spend some time in the Palm Section. It is stupendous. The huge *Corypha* palms are there in quantity: 40 of *C. umbraculifera*, the Talipot, and 10 of *C. elata*, itself a most noble and imposing tree though smaller than the Gargantuan Talipot. The fan leaves of the latter are so wide that Solomon and seven of his wives could lie side by side upon one leaf without any unseemly overlapping.

But there are hundreds of palms, great ones and small ones, in a bewildering number of genera and species - in a word, a palm heaven. To undertake to describe only the more notable palms in that garden would be a task not soon ended. A list of the palms, as appended below, will have to suffice.

In connection with the publication of this list, we have been asked to state that the Atkins Garden is not prepared to furnish seeds or to answer letters in regard to them. Visitors at the garden are sometimes given permission to collect seeds on their own account; but since the Garden has no facilities for gathering and forwarding seeds, or for entering into correspondence about them, it is obliged to ignore requests.

Any palms of doubtful identity have been excluded from the appended list. It would have been considerably extended had not the doubtful names been removed. When all the species have finally been determined, the number may approach 300.

PALMS IN THE ATKINS GARDEN

Acanthorrhiza aculeata	Calyptrogyne occidentalis
" Warscewiczii	Caryota Cumingii
Acrocomia armentalis	" mitis
" sclerocarpa	" Rhumphiana
" Totai	" urens
Actinophloeus Macarthurii	Chamaedorea concolor
" Nicolai	" elegans
" propinquis	" Schippii
Actinorrhytis calapparia	Chamaerops humilis var. argentea
Adonidia Merrillii	" " " arborescens
Aeria attenuata	Chrysalidocarpus decipiens
Archontophoenix Alexandrae	" lucubensis
" Cunninghiana	" lutescens
Areca cathecu	" madagascariensis
" triandra	Coccothrinax acuminata
Arecastrum Romanzoffianum	" barbadensis
Arenga ambong	" crinita
" microcarpa	" fragans
" obtusifolia	" Garberi
" pinnata	" litoralis
" tremula - LIKE A. ENGLERI	" Martii
" Wrightii	" Miraguama
Arikuryroba schizophylla	" Yuraguana var. orientalis
Astrocaryum alatum	Cocos nucifera
" mexicanum	Colpothrinax Wrightii
" vulgare	Copernicia Baileyana
Attalea amygdalina	" Brittonorum
" gomphococca	" Burretiana
" macrocarpa	" cerifera
Bactris acanthophylla	" Clarkii
" major	" Cowellii
Bentinckia nicobarica	" Curbeloi
Borassus aethiopium	" fallaense
" flabellifer	" gigas
Brahea dulcis	" glabrescens
Butia Bonneti	" hospita
" capitata	" humicola
Calamus siphonospathus	" pauciflora

Copernicia ramosissima	Mauritia flexuosa
" rigida	Maximiliana maripa
" Sanctae Martae	" regia
" Sueroana	Metroxylon Sagus
" Torreana	Nannorhops Ritchieana
" Yarey	Nipa fruticans
" " var. robusta	Manthe costaricana
Corozo oleifera	Oncosperma fasciculatum
Corypha elata	" tigillaria
" umbraculifera	Oothis axonoma
Daemonorops mollis	Opsiandra maya
Dictyosperma album	Orania Palindan
" " var. aureum	Orbignya cohune
" " " rubrum	Paurotis Wrightii
Didymosperma nanum	" " var. hundurensis
Diplothemium caudescens	Phoenix acaulis
Elaeis guineensis	" canariensis
" " var. Poissonii	" dactylifera
Erythea Brandegeei	" humilis
" lorentensis	" " var. Hanceana
Euterpe edulis	" paludosa
" globosa	" pusilla
Gaussia princeps	" reclinata
Guilielma utilis	" Roebelenii
Heterospathe elata	" rupicola
Hyophorbe amaricaulis	" sylvestris
" Verschaffeltii	" zeylanica
Hyphaene crinita <i>var. h. crinita</i>	Phytelephas macrocarpa
" thebaica	Pinanga Kuhlii
Inodes exul	" maculata
Latania Comersonii	Pritchardia pacifica
" Loddigesii	Pseudophoenix insignis
" Verschaffeltii	" Saonae
Licuala amplifrons	" Sargentii
" grandis	Ptychoraphis augusta
" peltata	Ptychosperma elegans
" spinosa	" " var. sphaerocarpum
Livistona altissima	Pyrenoglyphis balanoidea
" australis	Raphia Gaertneri
" chinensis	" pedunculata
" cochinchinensis	" vinifera
" decipiens	Rhapidothymum Hystrix
" Mariae	Rhapis humilis
" Merrillii	Roystonea borinquena
" Muelleri	" oleracea
" olivaeformis	" regia
" rotundifolia	Sabal Blackburniana
" Saribus	" caularum
" subglobosa	" Deeringiana
Lodoicea maldivica	" glaucescens
Manicaria saccifera	" guatemalensis
Martinezia caryotaefolia	" Louisiana
" corallina	" mauritiaeformis
" erosa	" megacarpa
" Lindeniana	" mexicana

Sabal minor
" Palmetto
" parviflora
" princeps
" texana
" Yapa
Salacca edulis
Scheelia Lauromulleriana
" osmantha
" Urbaniana
Serenoa serrulata

Syagrus coronata
" flexuosa
Thrinax microcarpa
" Morrisii
" parviflora
" punctulata
Trithrinax acanthocoma
Vitiphoenix sessifolia
Washingtonia filifera
" robusta

ZALACCA EDULIS

see
(Hawkes p. 84)
Palm Papers