

LETTERS

2615 So. Santa Fe
Vista, Calif.
April 26, 1966

TO THE EDITOR OF PRINCIPES AND ALL
THE FLORIDIANS WHO HOSTED THE
BIENNIAL AT MIAMI, 1966.

As President of the California chapter of The Palm Society and a member who attended The Palm Society's 1966 Biennial, on behalf of the California delegation I wish to express my profound appreciation to the wonderful people, the fabulous places and the gorgeous palms.

I hesitate to list the palms and the list of people must include Dent Smith, Stanley Kiem, Dr. Moore, Lucita Wait, Nat De Leon, John Turner, Jack Koebernik, and my personal friends the Dale Bremermans. The palms at Nassau defied my best superlatives and if I had to pick the best at the Langlois I'd say their *Areca Langloisiana*, the big *Pritchardia* and the gigantic *Latania lontaroides* plus their *Phoenixophorium Borsigianum* (*Stevensonia*).

The private collection of the Flints (?) shown us by Dale Bremerman and Turner's collection in Miami had about

the best specimens in Florida. I can't really tell everyone how fortunate we were to attend Miami's meeting. Dr. Moore's lecture was worth the trip by itself, the weather was too good to be true (we never opened our raincoats), the people were so generous with their time and so helpful that after that show I really pity Otto Martens whose responsibility it probably will be to host the next biennial. (That was a great act to have to follow — I hope we can forget all or some in two years for the sake of the Californians).

I must also express my gratitude to Mr. Russell of Nassau for the tour and food served at his nice home by his gracious wife. It is most difficult to single out individuals, places and palms, but all in all I had a most memorable six days and I'm praying my slides turn out O.K. to show at our next meeting in California. I didn't think the Floridians bragged enough about *Chrysalidocarpus Cabadae* and they should really plant more *Erythea armata* and *Rhopalostylis*, especially *R. Baueri*. (They will when they see Dent's palms). Thank you one and all for the best time of my life.

DR. M. E. DARIAN

New Chromosome Counts in the Palmae

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Chromosome numbers in palms have been summarized by Darlington and Wylie (1955), Sharma and Sarkar (1956), and Read (in press). More recent counts have been reported by Cocucci (1964) and Read (1963, 1964, 1965). The following list contains additional reports made as part of a broader study of palms* under the direction of Dr. H. E. Moore of Cornell University. Chromosome numbers were deter-

mined at pollen-tube mitosis from pollen germinated on a colchicine-lactose-gelatin medium as reported earlier by Read (1964). The list is alphabetically arranged by subfamilies. Abbreviations for herbaria where voucher specimens are deposited or for place of origin when not otherwise noted are: (BH) L. H. Bailey Hortorium, Cornell Uni-

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versity, Ithaca, New York; (FTG) Fairchild Tropical Garden, Miami, Florida; (UCWI) University of the West Indies, Mona, Jamaica; (USDA) United States Department of Agriculture Plant Introduction Garden, Miami, Florida.

It will be noted that among the Arecoideae several genera (*Calyptronoma*, some species of *Chamaedorea*, *Gaussia*, *Geonoma*, *Neonicholsonia*, *Opsiantra*, *Pseudophoenix*, *Roystonea*) depart from the predominant number of $n=16$. In the Caryotoideae and Borassoideae there is also variation though to a somewhat lesser extent and the count for *Nypa* differs from that previously reported. The Cocoideae divide into two groups, the spiny bactroid alliance having $n=15$, and the remaining genera which, with two exceptions, have $n=16$.

Literature Cited

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- Darlington, C. D. & A. P. Wylie. 1955. Chromosome atlas of flowering plants 396-399.
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- _____. (in press) Chromosome numbers in the Coryphoideae. Cytologia 30: 7 pp.
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Taxon

Subfamily Arecoideae

Archontophoenix Alexandrae (F. Muell.) H. Wendl. & Dr.

Areca Catechu L.

Bentinckia nicobarica (S. Kurz) Becc.

Brasillophoenix sp.

Calyptronoma occidentale (Sw.) H. E. Moore

Chamaedorea

alternans H. Wendl.

aff. *Arenbergiana* H. Wendl.

catractarum Mart.

elegans Mart.

Ernesti-Augusti H. Wendl.

Number Origin and Voucher Number

$n=16$ Cult. FTG: Read 826 (BH, FTG)

$n=16$ Cult. USDA: Read 913 (BH, FTG)

$n=16$ Cult. USDA: Read 1412 (BH, FTG)

$n=16$ Cult. FTG: Read 980 (BH, FTG)

$n=14$ Jamaica: Read 1573, 1610 (BH, UCWI)

$n=16$ Cult. FTG: Read 1309 (BH, FTG)

$n=16$ Cult. FTG: Read 1568 (BH, FTG)

$n=16$ Cult home of R. W. Read, Miami, Fla.
Read 1382 (BH, FTG)

$n=13$ Cult. FTG: Read 1238 (BH, FTG)

$n=13$ Cult. FTG: Read 803 (BH, FTG)

Native to

Australia

Old World

Nicobar Islands

New Guinea

Jamaica

Mexico

Guatemala

Mexico

Mexico, Guatemala

Mexico to Honduras

Taxon	Number	Origin and Voucher Number	Native to
<i>Chamaedorea</i> contd.			
<i>erumpens</i> H. E. Moore	n = 13	Cult. FTG: <i>Read 1379</i> (BH, FTG)	Mexico, Guatemala
<i>microspadix</i> Burret	n = 13	Cult. FTG: <i>Read 613</i> (BH, FTG)	Mexico
<i>monostachys</i> Burret	n = 13	Cult. Longwood Gardens, Penn.: <i>Read 1527</i> (BH, FTG)	Mexico
<i>oblongata</i> Mart.	n = 13	Cult. FTG: <i>Read 1363</i> (BH, FTG)	Mexico to Honduras
<i>radicalis</i> Mart.	n = 13	Cult. FTG: <i>Read 614</i> (BH, FTG)	Mexico
<i>Sartorii</i> Liebm.	n = 13	Cult. FTG: <i>Read 1324</i> (BH, FTG)	Mexico to Honduras
<i>Schiedeana</i> Mart.	n = 13	Cult. FTG: <i>Read 1297</i> (BH, FTG)	Mexico
<i>Seifrizii</i> Burret	n = 13	Cult. FTG: <i>Read 1380</i> (BH, FTG)	Mexico
aff. <i>Tepejilote</i> Liebm.	n = 16	Cult. FTG: <i>Read 1301</i> (BH, FTG)	Mexico
aff. <i>Tepejilote</i> Liebm.	n = 16	Cult. FTG: <i>Read 1325</i> (BH, FTG)	Mexico
aff. <i>Wendlandiana</i> (Oerst.) Hemsl.	n = 16	Cult. FTG: <i>Read 1378</i> (BH, FTG)	Mexico, Guatemala
aff. <i>Wendlandiana</i> (Oerst.) Hemsl.	n = 16	Cult. FTG: <i>Read 1383</i> (BH, FTG)	Mexico, Guatemala
sp.	n = 13	Cult. FTG: <i>Read 805</i> (BH, FTG)	
sp.	n = 13	Cult. FTG: <i>Read 1384</i> (BH, FTG)	
sp.	n = 13	Cult. Nat J. DeLeon, Parrot Jungle, Miami, Fla.: <i>Read 1372</i> (BH, FTG)	
sp.	n = 13	Cult. FTG: <i>Read 1385</i> (BH, FTG)	
<i>Chrysalidocarpus</i>			
<i>lutescens</i> H. Wendl.	n = 16	Cult. FTG: <i>Read 1410</i> (BH, FTG)	Madagascar
<i>madagascariensis</i> Becc.	n = 16	Cult. Hope Bot. Gard., Jamaica: <i>Read 1659</i> (BH)	Madagascar
<i>Dictyosperma</i>			
<i>album</i> (Bory) H. Wendl.	n = 16	Cult. FTG: <i>Read 918</i> (BH, FTG)	Mascarene Islands
<i>aurum</i> (I. B. Balf.) Nicholson	n = 16	Cult. FTG: <i>Read 919</i> (BH, FTG)	Mascarene Islands
<i>Dryophloeus Beguinii</i> (Burret) H. E. Moore	n = 16	Cult. USDA: <i>Read 1395</i> (BH, FTG)	Moluccas
<i>Gausssia attenuata</i> (O. F. Cook) Becc.	n = 14	Cult. FTG: <i>Read 757</i> (BH, FTG)	Puerto Rico
<i>Geonoma Camaná</i> Trail	n = 14	Cult. Nat J. De Leon, Parrot Jungle, Miami, Fla.: <i>Moore 8502</i> (BH)	Peru

Taxon	Number	Origin and Voucher Number	Native to
<i>Heterospathe</i>			
<i>elata</i> Scheff.	n = 16	Cult. FTG: <i>Read 1294</i> (BH, FTG)	East Indies
<i>humilis</i> Becc.	n = 16	Cult. FTG: <i>Read 1293</i> (BH, FTG)	New Guinea
<i>Hydriastele</i> sp.	n = 16	Cult. FTG: <i>Read 1370</i> (BH, FTG)	New Guinea
<i>Mascarena</i>			
<i>lagenicaulis</i> L. H. Bailey	n = 16	Cult. FTG: <i>Read 770</i> (BH, FTG)	Mascarene Islands
<i>Verschaffeltii</i> (H. Wendl.) L. H. Bailey	n = 16	Cult. FTG: <i>Read 1387</i> (BH, FTG)	Mascarene Islands
<i>Neodypsis Decaryi</i> Jumelle	n = 16	Cult. FTG: <i>Read 827</i> (BH, FTG)	Madagascar
<i>Neonicholsonia Watsonii</i> Damm.	n = 18	Cult. Longwood Gardens, Penn.: <i>Huttleston 1943</i> (BH)	Central America
<i>Nephrosperma</i>			
<i>Vanhoutteanum</i> (H. Wendl. ex Van Houtte) I. B. Balf.	n = 16	Cult. Castleton Bot. Gard., Jamaica: <i>Read 1557</i> (BH)	Mauritius
<i>Opsandra Maya</i> O. F. Cook	n = 14	Cult. FTG: <i>Read 776</i> (BH, FTG)	Mexico, Guatemala
<i>Paralinospadix stenoschista</i> Burret?	n = 16	Cult. FTG: <i>Read 1426</i> (BH, FTG)	New Guinea
<i>Phoenicophorium Borsigianum</i> (C. Koch) Stuntz	n = 16	Cult. Castleton Bot. Gard., Jamaica: <i>Read 1550</i> (BH)	Seychelle Islands
<i>Pinanga Kuhlii</i> Blume	n = 16	Cult. FTG: <i>Read 822</i> (BH, FTG)	East Indies
<i>Pseudophoenix</i>			
<i>Sargentii</i> H. Wendl. ex Sarg.	n = 17	Cult. USDA: <i>Read 839, 1397</i> (BH, FTG)	Caribbean
<i>vinifera</i> (Mart.) Becc.	n = 17	Cult. USDA: <i>Read 759, 1456</i> (BH, FTG)	Hispaniola
<i>Pythosperma Macarthurii</i> (H. Wendl.) Nicholson	n = 16	Cult. FTG: <i>Read 1481</i> (BH, FTG)	New Guinea
<i>Roystonea</i>			
<i>altissima</i> (Mill.) H. E. Moore	n = 18	Jamaica: <i>Read 1585</i> (BH, UCWI)	Jamaica
<i>elata</i> (Bartr.) F. Harper	n = 18	Florida: <i>Read 838</i> (BH, FTG)	Florida
<i>princeps</i> (Becc.) Burret	n = 18	Jamaica: <i>Read 1570</i> (BH, UCWI)	Jamaica
sp. (<i>elata</i> ?)	n = 18	Cult. FTG: <i>Read 602</i> (FTG)	
sp. (<i>elata</i> ?)	n = 18	Cult. FTG: <i>Read 917</i> (FTG)	
sp.	n = 18	Cult. Jamaica: <i>Read 1566</i> (BH, UCWI)	
<i>Siphokentia Beguinii</i> Burret	n = 16	Cult. FTG: <i>Read 604</i> (BH, FTG)	Moluccas

Taxon	Number	Origin and Voucher Number	Native to
<i>Synechanthus mexicanus</i> L. H. Bailey	n = 16	Cult. FTG: <i>Read 1421</i> (BH, FTG)	Mexico
<i>Veitchia</i>			
<i>Merrillii</i> (Becc.) H. E. Moore	n = 16	Cult. FTG: <i>Read 1235</i> (BH, FTG)	Philippine Islands
<i>Montgomeryana</i> H. E. Moore	n = 16	Cult. FTG: <i>Read 1436</i> (BH, FTG)	New Hebrides?
Subfamily Borassoideae			
<i>Borassus flabellifer</i> L.	n = 18	Cult. USDA: <i>Read 818</i> (BH, FTG)	Africa
<i>Latania</i>			
<i>Loddigesii</i> Mart.	n = 14	Cult. FTG: <i>Read 1475</i> (BH, FTG)	Mascarene Islands
<i>Iontaroides</i> (J. Gaertn.) H. E. Moore	n = 14	Cult. FTG: <i>Read 1486</i> (BH, FTG)	Mascarene Islands
<i>Verschaffeltii</i> Lem.	n = 14	Cult. FTG: <i>Read 616</i> (BH, FTG)	Mascarene Islands
<i>Lodoicea maldivica</i> (Gmel.) Pers.	n = 17	Cult. Hope Bot. Gard., Jamaica: <i>Read 1488</i> (BH)	Seychelle Islands
Subfamily Caryotoideae			
<i>Arenga</i>			
<i>caudata</i> (Loureiro) H. E. Moore	n = 32	Cult. FTG: <i>Read 1374</i> (BH, FTG)	S. E. Asia
<i>pinnata</i> (Wurmb) Merr.	n = 16	Cult. FTG: <i>Read 772</i> (BH, FTG)	S. E. Asia
aff. <i>porphyrocarpa</i> (Mart.) H. E. Moore	n = 16	Cult. Hope Bot. Gard., Jamaica: <i>Read 1567</i> (BH)	S. E. Asia
<i>tremula</i> (Blanco) Becc.	n = 16	Cult. FTG: <i>Read 1376</i> (BH, FTG)	Philippine Islands
<i>Wightii</i> W. Griff.	n = 16	Cult. Castleton Bot. Gard., Jamaica: <i>Read 1660</i> (BH)	S. E. Asia
<i>Caryota</i>			
sp. (<i>Cummingii</i> ?)	n = 17	Cult. FTG: <i>Read 1381</i> (BH, FTG)	S. E. Asia
sp. (<i>mitis</i> ?)	n = 17	Cult. FTG: <i>Read 1429</i> (BH, FTG)	S. E. Asia
sp. (<i>mitis</i> ?)	n = 17	Cult. FTG: <i>Read 1435</i> (BH, FTG)	S. E. Asia
sp.	n = 17	Cult. FTG: <i>Read 1482</i> (BH, FTG)	S. E. Asia
Subfamily Coccoideae			
<i>Acrocomia</i>			
<i>aculeata</i> (Jacq.) Lodd. ex Mart.	n = 15	Cult. FTG: <i>Read 1425</i> (BH, FTG)	West Indies

Taxon	Number	Origin and Voucher Number	Native to
<i>crispa</i> (HBK) C. F. Baker ex Becc.	n = 15	Cult. FTG: <i>Read 821</i> (BH, FTG)	Cuba
<i>spinosa</i> (Mill.) H. E. Moore	n = 15	Jamaica: <i>Read 1661</i> (BH, UCWI)	Jamaica
<i>Aiphanes</i>			
<i>caryotaefolia</i> (HBK) H. Wendl.	n = 15	Cult. FTG: <i>Read 905</i> (BH, FTG)	No. South America
<i>erosa</i> (J. Linden) Burret	n = 15	Cult. FTG: <i>Read 1357</i> (BH, FTG)	West Indies
<i>Allagoptera arenaria</i> (Gomes) O. Kuntze	n = 16	Cult. FTG: <i>Read 955</i> (BH, FTG)	Brazil
<i>Arecastrum Romanzoffianum</i> (Cham.) Becc.	n = 16	Cult. FTG: <i>Read 911</i> (BH, FTG)	Brazil
<i>Arvikuryoba schizophylla</i> (Mart.) L. H. Bailey	n = 15	Cult. FTG: <i>Read 824</i> (BH, FTG)	Brazil
<i>Astrocarum mexicanum</i> Liebm.	n = 15	Cult. FTG: <i>Read 902</i> (BH, FTG)	Mexico
<i>Bactris</i>			
<i>Gasipaes</i> HBK			
sp.	n = 15	Cult. FTG: <i>Read 1413</i> (BH, FTG)	Tropical America
<i>Butia capitata</i> (Mart.) Becc.	n = 15	Cult. FTG: <i>Read 901</i> (BH, FTG)	
<i>Cocos nucifera</i> L.	n = 16	Cult. FTG: <i>Read 906</i> (BH, FTG)	Brazil to Argentina
<i>Elaeis oleifera</i> (HBK) Cortés	n = 16	Cult. FTG: <i>Read 944</i> (BH, FTG)	Old World
<i>Jubaea chilensis</i> (Mol.) Baill.	n = 16	Cult. A. R. Jennings Estate, Coral Gables, Fla.: <i>Read 1388</i> (BH, FTG)	Central and Northern South America
<i>Orbignya</i> aff. <i>Cohune</i> ? (Mart.) Dahlgren & Standl.	n = 16	Chile: <i>Moore 9366</i> (BH)	Chile
<i>Polyandrococos caudescens</i> (Mart.) Barb.-Rodr.	n = 16	Cult. USDA: <i>Read 1398</i> (BH, FTG)	
<i>Rhyticocos amara</i> (Jacq.) Becc.	n = 16	Cult. Castleton Bot. Gard., Jamaica: <i>Read 1662</i> (BH)	Brazil
<i>Scheelea</i> sp.	n = 16	Cult. USDA: <i>Read 1415</i> (BH, FTG)	West Indies
<i>Syagrus</i>			
<i>comosa</i> (Mart.) Mart.	n = 16	Cult. FTG: <i>Read 1428</i> (BH, FTG)	Brazil
<i>coronata</i> (Mart.) Becc.	n = 16	Cult. FTG: <i>Read 910</i> (BH, FTG)	Brazil
<i>quinquefaria</i> (Barb.-Rodr.) Becc.	n = 16	Cult. FTG: <i>Read 1424</i> (BH, FTG)	Brazil
sp.	n = 16	Cult. FTG: <i>Read 1408</i> (BH, FTG)	
sp.	n = 16	Cult. FTG: <i>Read 1489</i> (BH, FTG)	
sp.	n = 15	Cult. FTG: <i>Read 1371</i> (BH, FTG)	

Taxon	Number	Origin and Voucher Number	Native to
Subfamily Coryphoideae			
<i>Coccothrinax</i>			
<i>acuminata</i> Sargent ex Becc.	n = 18	Cult. FTG: <i>Read 1431</i> (BH, FTG)	Cuba
<i>crinita</i> Becc.	n = 18	Cult. USDA: <i>Read 1440</i> (BH, FTG)	Cuba
<i>inaguensis</i> R. W. Read	n = 18	Cult. USDA: <i>Read 1439</i> (BH, FTG)	Great Inagua
<i>Martii</i> (Griseb. & H. Wendl.) Becc.	n = 18	Cult. USDA: <i>Read 1400</i> (BH, FTG)	Cuba
<i>Miraguama</i> (HBK) Becc. var.	n = 18	Cult. FTG: <i>Read 1406</i> (BH, FTG)	Cuba
<i>Miraguama</i> (HBK) Becc. var.	n = 18	Cult. Langlois' Garden, The Retreat, Nassau, Bahamas: <i>Read 1480</i> (BH, FTG)	Cuba
<i>Rhapis excelsa</i> (Thumb.) Henry	n = 18	Cult. FTG: <i>Read 701</i> (BH, FTG)	China
<i>Sabal jamaicensis</i> Becc.	n = 18	Jamaica: <i>Read 1618</i> (BH, UCWI)	Jamaica
<i>Schippia concolor</i> Burret	n = 18	Cult. Langlois' Garden, The Retreat, Nassau, Bahamas: <i>Read 1445</i> (BH, FTG)	British Honduras
<i>Washingtonia filifera</i> (L. Linden) H. Wendl.	n = 18	Cult. FTG: <i>Read 812</i> (BH, FTG)	California
<i>Zombia antillarum</i> (Descourtillz ex Jackson) L. H. Bailey	n = 18	Cult. FTG: <i>Read 721</i> (BH, FTG)	Hispaniola
Subfamily Lepidocaryoideae			
<i>Raphia taedigera</i> (Mart) Mart.	n = 14	Costa Rica: <i>Read 1483</i> (FTG)	Central America
Subfamily Phoenicoideae			
<i>Phoenix reclinata</i> Jacq.	n = 18	Escape from cult. Key Biscayne, Fla.: <i>Read 1373</i> (BH, FTG)	Africa
Subfamily Nypoideae			
<i>Nypa fruticans</i> Wurrmb	n = 17	Cult. FTG: <i>Read 734</i> (BH, FTG)	S. E. Asia and Pacific Islands
Subfamily Phytelphantoideae			
<i>Phytelphas</i> sp.	n = 16	Cult. Castleton Bot. Gard., Jamaica: <i>Read 1629</i> (BH)	Tropical America