

Palms in the Botanic Garden at Lae, Papua New Guinea

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Any palm enthusiast fortunate enough to visit the South Pacific or Far East will find it well worth his while to stop at Papua New Guinea. Aside from the opportunity to see wild palms in the bush, there is a very fine botanic garden at Lae, which includes an extensive and rapidly growing collection of native and exotic palms. The Botanic Garden of the Department of Forests, Papua New Guinea, was established only two decades ago on a site occupied by swampland, an old coconut plantation, a pineapple farm, and a bit of native rainforest that has been preserved intact. (See J. S. Womersley, Starting from Scratch—the Botanic Garden at Lae, *The Garden Journal, New York Botanical Garden* 12(4):140–143, 1962.)

Lae is situated on the coast of north-eastern New Guinea, at 6°45' S. latitude, and has a truly equatorial climate. The rainfall is abundant year-round, temperatures are constantly warm and day length varies by only 51 minutes through the year. It is a climate suitable for the most sensitive of tropical plants, though many subtropical or temperate plants will do poorly or fail to flower because the lack of seasonal changes in temperature and day length. The active young garden is bound to become an important repository of plants from the equatorial tropics around the world.

The earliest palm plantings appear to date from the mid-fifties, though there are a number of native palms that appear to have been standing on the site prior to the establishment of the garden.

Most notable of these are the many fine old individuals of *Gulubia costata* to be found in the native forest areas and in the area behind the adjacent war cemetery.

The highlights of the garden are the palms native to New Guinea, many of which can be found nowhere else in the world. These include species of *Actinorhytis*, *Areca*, *Calyptrocalyx*, *Drymophloeus*, *Heterospatha*, *Hydriastele*, *Licuala*, *Livistona*, *Nengella*, *Orania*, *Ptychococcus* and *Ptychosperma*.

The main palmetum consists of a large grassy expanse with the palms planted mostly around the edge. A road winds through the area and is lined with *Roystonea regia* palms. A number of old coconut palms have been left standing about the lawn, and in the rainforest border many young *Calamus hollrungii* plants are beginning to climb into the trees. It is a pleasant place, and local inhabitants are often seen strolling among the palms and relaxing on the grass.

The plot which is behind the war cemetery is smaller and more secluded. Here are the best examples of *Gulubia costata*, and the only specimens of *Orania disticha*, which is unusual for its leaves arranged in one plane. A still smaller planting of palms is across from the fire station on Milford Haven Road. Here are the best specimens of *Paralinospadix hollrungii* and *Areca macrocalyx*.

The list that follows was compiled largely from the accession records of the garden, and verified as much as possible through a personal inventory of the



1. The road that winds through the palmetum is lined with royal palms.



2. People return home from market via the botanic garden.



3. Part of the palmetum near the rainforest.

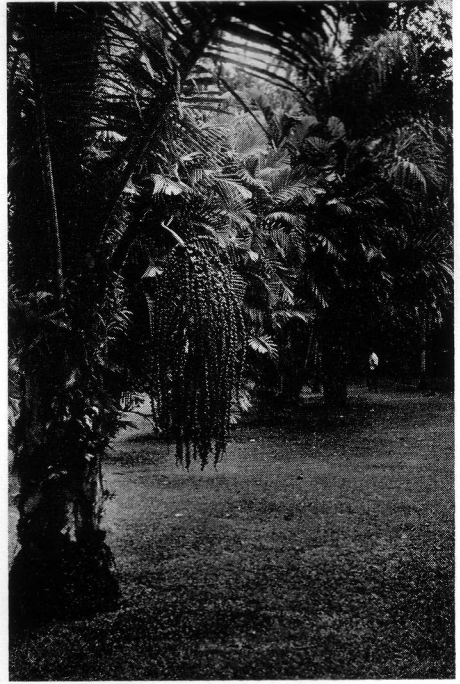
palms in the garden. As in any botanical garden open to the public, many labels have been lost or misplaced over the years. A number of the unlabeled palms are juvenile or currently sterile and



4. Two *Gulubia costata* poke through the rainforest vegetation at the edge of the palmetum.



5. Young plants of *Gulubia costata* come up spontaneously in the native rainforest area.



6. An *Arenga pinnata* in flower with *Ptychosperma* behind.

unidentifiable and cannot be matched with names on the list. In such cases, the names are followed by an X to indicate that the corresponding palms have not been located but may exist among the unidentified specimens. In some cases there are no possible matches, and the palms listed are presumed to have died. These have been removed from the list.

The numbers that follow the name in the list are the garden accession numbers, beginning with E or S. The E numbers represent plants that existed or were planted before regular records were kept. They were inventoried and numbered in 1968. The S numbers, dating back to 1957, are the regular seed accession numbers. Following the accession numbers are the garden location numbers, beginning with P (Palmetum), BWC (Behind War Cemetery), or FS (Fire

Station block), and followed by the numbers by which the palms are marked on the map prepared by myself and Mr. Greg Leach of the garden staff (on file at the garden). For each entry, only a few representative location numbers are listed, though there may be many other individuals located in the garden.

PALMS GROWING IN THE DEPARTMENT
OF FORESTS BOTANIC GARDEN, LAE

Acoelorrhaphe wrightii (Griseb. et H. Wendl. H. Wendl. ex Becc.—S1421: P 11, FS 12

Acrocomia aculeata (Jacq.) Mart.—S2176: P 277–80

Actinorhynchus calapparia (Bl.) H. Wendl. et Drude ex Scheff.—P 184, 260–66
? *Allagoptera* sp.—P 257

Areca catechu L.—scattered locations
A. macrocalyx Zipp. ex Bl.—S1905: FS 1–3



7. *Hydriastele* sp. has an unusual leaf arrangement.



9. *Heterospathe woodfordiana* from the Solomon Islands.

A. cf. novo-hibernica Becc.—P 173

A. triandra Roxb.—S1568: P 251

A. spp.—E2008: P 272; E2019: P 221; S2004: P 168–70



8. Young plants of *Orania macropetala* from seed collected by H. E. Moore in 1964.



10. *Caryota urens* in flower and fruit.



11. When *Caryota* flowers, the ground becomes carpeted with the fallen male flowers.

Arecastrum romanzoffianum (Cham.)
Becc.—P 37, 107
Arenga microcarpa Becc.—S1248, S702:
in native rainforest
A. obtusifolia Mart.—S2317: X



13. New Britain is the home of this *Licuala* species.



12. An unidentified species of *Paralinospadix* from the Milne Bay District (accession S 1990).



14. The leaf bases of *Metroxylon salomonense* are zebra-striped and prickly.



15. An undescribed *Dryophloeus* from New Britain.



17. A close-up view of the crown of the *Livistona* in Figure 16.

A. tremula (Blanco) Becc.—S1526: P 179–183

A. westerhoutii W. Griff.—S876: P 59, 120

A. pinnata (Wurmb) Merrill—S1255, S1259: P 88–90, 244

A. porphyrocarpa (Mart.) H. E. Moore—S2321: X



16. A fine stand of *Livistona* species bears bright red fruit (accession E 2022).



18. *Nengella* species grows in the shady border.



19. A typically large clump of a new species of *Ptychosperma* not yet described.

- A. wightii* W. Griff.—S2309: X
Borassus flabellifer L.—S2707: P 40
Butia capitata (Mart.) Becc. var. *odorata* (Barb.-Rodr.) Becc.—S116: P 217
Butia bonnetii Becc.—S1541: P 2
Calamus hollrungii Becc.—rainforest
Calyptrocalyx lauterbachianus Becc.—S1894: X; S1883: P 27, 28, 121
C. sp.—E2029: P 33
Caryota mitis Lour.—S1057: P 116, BWC 15
C. plumosa Hort.—S578: P 81
C. rumphiana Mart.—S368: BWC 15
C. urens L.—E1020: P 252-4
Chamaedorea erumpens H. E. Moore—S1433: BWC 1-4
Chamaedorea seifrizii Burret—E987: P 94-6, 273-5
Chamaerops humilis L.—S28: P 97, 114
Chrysalidocarpus lutescens H. Wendl.—S2157: P 147-51
Cocos nucifera L.—scattered locations
Copernicia holguinensis León—S1651: X
C. macroglossa Wendl. ex Becc.—S2536: X
Cyrtostachys lakka Becc.—S1055: P 85-87, 256
Dictyosperma album (Bory) H. Wendl. et Drude ex Scheff.—S2134: P 160, 100
Drymophloeus sp.—P 195-6
Elaeis guineensis Jacq.—S882: P 44, 45, 218, BWC 16, 30
Gulubia costata (Becc.) Becc.—scattered in native forest areas and BWC
Heterospathe humilis Becc.—S1893: scattered in shady border areas
H. woodfordiana Becc.—S1911: P 153-5, along Memorial Drive
H. sp.—P 14
Hydriastele microspadix (Becc.) Burret—E2013, E2015, E2018: P 3, 6, 8, 219, 220
H. cf. microspadix—E2010: P 24, 41
H. cf. wendlandiana (F. Muell.) H. Wendl. et Drude—E2012: P 104
Hyphaene crinita Gaertn.—S2792: P 203-5
Latania lontaroides (Gaertn.) H. E. Moore—S1071: P 47, 77, 78
L. verschaffeltii Lem.—S1540: P 52-4
Licuala lauterbachii Damm. et K. Schum.—S1904: P 166-7
L. spinosa Thunb.—S2170, S2487: X
L. sp.—S521: P 9, 26, 55, 80
Livistona chinensis var. *subglobosa* (Hassk.) Becc.—S2282, E2014: P 133-7, 62
L. decipiens Becc.—S416: P 118, 42, 66, BWC 24, 25
L. mariae F. Muell.—S19: X
L. melanocarpa Burret—S5093: X
L. sp.—E2022: P 68-76, 43
Mascarena verschaffeltii L. H. Bailey—S1140: P 106
Metroxylon sagu Rottb.—E1060; scattered localities
M. salomonense (Warb.) Becc.—S1766: P 91-93

Nengella spp.—P23, 112, and in various border areas
Nedypsis decaryi Jumelle—S648: P 27, 31, 115, 119
Nephrosperma vanhoutteanum (H. Wendl. ex van Houtte) I. B. Balf.—S2320: X
Normanbya normanbyi (W. Hill) L. H. Bailey—S2545: X
Oncosperma fasciculatum Thwaites—S1035: P 268, BWC 8, 9
O. tigillarum (Jack) Ridley—S2304: P 144-5
Orania disticha Burret—S955: BWC 26-8
O. macropetala Laut. et K. Schum.—S1835: P 126-30
O. sp.—S2710: P 211-13
Orbignya cohune (Mart.) Dahlgren ex Standl.—S2326: P 255; S2386: P 138-40
Paralinospadix hollrungii (Becc.) Burret—S1656: FS 9
P. sp.—S1990: P 5, 7
Phoenix reclinata Jacq.—S25: P19, 228-30
Pritchardia pacifica Seem. et H. Wendl.—S783: P 249-50
P. thurstonii F. Muell. et Drude—S784: X
Ptychococcus cf. *paradoxus* (Scheff.) Becc.—S1240: P 21
Ptychococcus sp.—E2024: P 231-6
Ptychosperma hybrid?—S2313: P20, 22
P. hybrid—S2294: P4, 18
P. hybrid—E2013: P 101-3
P. macarthurii (H. Wendl.) Nichols.—P 25
P. microcarpum (Burret) Burret—E2016: P 188
P. sp. nov. ined.—E2021, E2030, E2031, E2040, E2044, E2045: P12, 13, 34, 57, 58, 61, 99, 185-7, BWC 29, 38
P. sp.—S1909: P 124-5; S1919: P 141-3

P. sp.—P 225-7
Raphia farinifera (Gaertn.) Hylander—S918: BWC 5-7
R. vinifera Beauv.—S1156: P 105
Rhopaloblaste elegans H. E. Moore—S1907: X
Roystonea oleracea (Jacq.) O. F. Cook—S2135: Herbarium Drive
R. regia (HBK) O. F. Cook—S238: Palmetum Drive
Sabal causiarum (O. F. Cook) Becc.—S847: P117, 113, 79, BWC 18, 19
S. mauritiaeformis (Karsten) Griseb. et H. Wendl.—S1584: P 174-8; FS 5-8
S. minor (Jacq.) Pers.—S2172: P 206-8
S. palmetto (Walter) Lodd. ex Schultes—S828: P 48-9, 83
S. sp.—S2062: P 16-17
Syagrus sp.—P 271, 276
Thrinax floridana Sarg.—S786: X
T. cf. *microcarpa* Sarg.—S785: X
T. parviflora Swartz—S793: P 98, 267, BWC 17, 23, 33
Veitchia joannis H. Wendl.—S1139: P 224
V. merrillii (Becc.) H. E. Moore—S789: P 56 and along Huon Rd.
V. montgomeryana H. E. Moore—S1125: P 108-10
Verschaffeltia splendida H. Wendl.—S2165: P 131-2
Wallichia sp.—P192-3
Washingtonia filifera (Linden) H. Wendl.—S1279: FS 10, 11
W. robusta H. Wendl.—S837: P 111

ACKNOWLEDGMENTS

This article was written while based at the Division of Botany, Department of Forests, Lae, Papua New Guinea on a project for the study of *Ptychosperma* supported by National Science Foundation Grant 20348X, H. E. Moore, Jr., principal investigator.