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Len Brass and His Contribution to Palm Discoveries in New Guinea and the Solomon Islands

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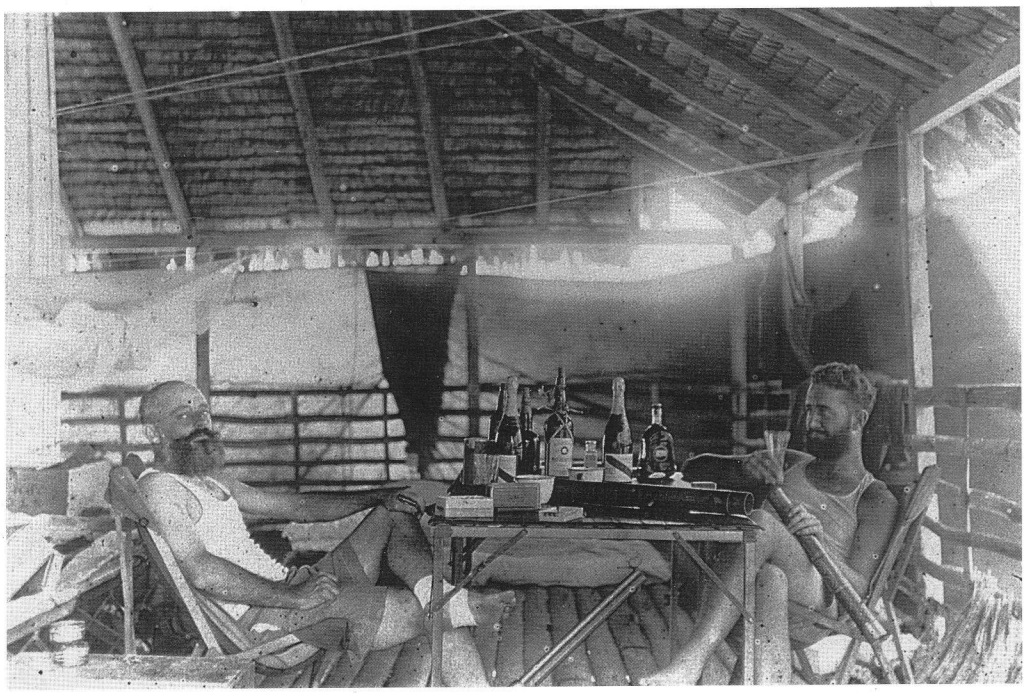
ABSTRACT

The contribution of L. J. (Len) Brass to the collection of New Guinea and Solomon Island palms is briefly reviewed. Names of 58 New Guinea and Solomon Island palms with type collections by Brass are listed with an indication of those 46 types held at the Queensland Herbarium (BRI).

Leonard J. Brass (Len) (1900–1971) was born in Toowoomba, Queensland, Australia and died at Cairns in the same state. Brass (Figs. 1–2) is undoubtedly the foremost Australian botanical collector of the 20th century and is well known for his many years working for the American Museum of Natural History where he was employed as botanist on the various Archbold Expeditions to Cape York Peninsula in Queensland and different parts of New Guinea (Archbold and Rand 1935; Archbold et al. 1942; Brass 1938, 1941, 1956, 1959, 1964,; Rand and Brass 1940).

Brass was employed to collect herbarium material of all vascular plants that he encountered, and in most instances his explorations took him to localities previously not botanized. As a consequence his discoveries of new taxa were numerous and his collections were extensively used as type specimens by botanists from the 1930s through to



1. Len Brass (left) together with Garnie Pike in Papua New Guinea in 1933.

2. Len Brass at Misima Island, Papua New Guinea in 1956.

the present. Brass's outstanding contribution to botanical exploration, particularly in New Guinea, has long been recognized (Perry 1971), and any botanist who has had the pleasure of working with his superbly presented specimens (nearly always fertile and with good label data) and reading his accounts of exploration (e.g., Brass 1938, 1941, 1953, 1956, 1959, 1964) will attest to his stature as a 20th century botanical icon. There are over 180 species and genera of vascular plants named for Len Brass (Forster, unpublished data), which is perhaps a record for any collector of this century.

This article focuses on Brass's contribution to the study of New Guinea and Solomon Island palms. The collection and preparation of herbarium specimens of palms are often avoided by plant collectors as they are bulky, difficult to process, and often unpleasantly spiny. Brass did not obviously avoid collecting palms, and although they do not comprise a major proportion of his collections (e.g., there are 149 palm specimens out of a total of 13 130 [or 1.13%] at the Queensland Herbarium), the collections that he made are significant as many were of new species. A total of 58 palm names from New Guinea and the Solomon Islands is based on type specimens collected by Brass (Table 1) and of these, one genus, *Brassiophoenix*, and nine species, *Cyrtostachys brassii*, *Gulubia brassii* (now a synonym of *G. longispatha* [Essig 1982]), *Gronophyllum brassii*, *Korthalsia brassii*, *Leptophoenix brassii* (now renamed as *Gronophyllum leonardii* [Essig and Young 1985]), *Livistona brassii*, *Orania brassii* (now a synonym of *O. lauterbachiana* [Essig 1980]), *Rhopaloblaste brassii* and *Strongylocaryum brassii* (now a synonym of *Ptychosperma salomonense* Burret [Essig 1978]) are named in his honor. The regard that these workers held for Brass can be noted in the text accompanying their description of taxa in his honor. Burret in describing *Brassiophoenix* stated "Herrn L. J. Brass, der deuch ausgezeichnete Sammlungen die Kenntnis der Flora von Neuguinea sehr gefördert, insbesondere aber auch durch verständnisvoll ausgewähltes Material die Kenntnis der Palmen sehr erwitert hat, sie die interessante neue Gattung gewidmet." Moore (1969), in describing new taxa of *Heterospathe*, noted: "Most of the following descriptions are taken from specimens collected by Leonard J. Brass whose interest in palms, as expressed in detailed notes, photographs and ample collections, has contributed greatly to our knowledge of the family in New Guinea."

The bulk of the taxonomic work on Brass's New Guinea and Solomon Island collections was undertaken by Max Burret (1883–1964) (Potztal 1958, 1965), who published a series of papers on New Guinea palms (Burret 1931, 1934, 1935, 1936, 1939) wherein 56 taxa were named based on Brass types. Burret did not explicitly state a herbarium where the holotype for each of these names was deposited, although it is likely that most of the specimens that he worked on were from the Arnold Arboretum in Harvard (A) as this is where most of the early Brass collections were identified and distributed from, apart from the numbers 3551–6077 that were distributed from the New York Botanical Garden (NY) (van Steenis-Kruseman 1950). Subsequent workers have usually indicated a holotype at A or have lectotypified names by specimens annotated by Burret at A or NY (e.g., Essig 1980, 1982). The extent of duplication of Brass palm collections is unknown, but based on other vascular plant groups, it is possible that duplicates could be represented in the herbaria A,

*Table 1. Names of New Guinea palm taxa with type collections by L. J. Brass. * indicates type specimen present at BRI. Isotypes, isolectotypes, and syntypes at BRI are also indicated. (Name in parentheses = currently used name).*

Name	Brass Collection Number
Actinophloeus linearis Burret (= *Ptychosperma lineare* (Burret) Burret)	1566
Actinophloeus macrospadix Burret (= *Ptychosperma microcarpum* (Burret) Burret	5628*
Actinophloeus microcarpus Burret (= *Ptychosperma microcarpum* (Burret) Burret	1659
Areca nanospadix Burret	921
Areca rostrata Burret	3971*
Brassiophoenix drymophloeoides Burret (= *B. schumannii* (Becc.) Essig)	5665*
Calamus altiscandens Burret	7327*
Calamus anomalus Burret	5298
Calamus brassii Burret	5009*
Calamus distentus Burret	7151*
Calamus eximius Burret	7216*
Calamus macrospadix Burret	5423*
Calamus multisetosus Burret	5422*
Calamus nannostachys Burret	1379
Calamus pseudozebrinus Burret	3923*
Calamus reticulatus Burret	6811*
Calamus stipitatus Burret	2719*
Calyptrocalyx albertisianus var. *minor* Burret	5790*
Calyptrocalyx archboldianus Burret	5290*
Cyrtostachys brassii Burret	5600*
Cyrtostachys microcarpa Burret (= *C. kisu* Becc.)	7162*
Gronophyllum brassii Burret	7093*
Gronophyllum leonardii Essig & Young	5631*
Gulubia brassii Burret (= *G. longispatha* Becc.)	5457*
Gulubia costata var. *gracilior* Burret (= *G. costata*)	5887*
Heterospathe annectens H.E. Moore	28409
Heterospathe minor Burret	3462*
Heterospathe pulchra H.E. Moore	27116
Heterospathe sphaerocarpa Burret	5413*
Hydriastele lepidota Burret	8701*
Korthalsia brassii Burret	6864*
Leptophoenix brassii Burret (= *Gronophyllum leonardii* Essig & Young)	5631*
Leptophoenix macrocarpa Burret (= *Gronophyllum pinangoides* (Becc.) Essig & Young)	5299*
Leptophoenix microcarpa Burret (= *Gronophyllum pinangoides* (Becc.) Essig & Young)	3998*
Licuala angustiloba Burret	7069*
Licuala concinna Burret	6894*
Licuala linearis Burret	3824*
Licuala magna Burret	7136*
Licuala pauciseta Burret	5637

BM, BO, BRI, CANB, K, L, LAE, and NY. The Queensland Herbarium (BRI) has 46 Brass type collections of palms (Table 1). If the specimens at A or NY are to be regarded as holotypes, then those at BRI should be considered isotypes, as indeed many have "Co-type" on the label. Some authors (e.g., Ferrero and Dowe 1996) have listed the specimens at A and BRI simply as types, and it will be necessary for future workers to designate lectotypes.

Table 1. Continued.

Name	Brass Collection Number
Licuala tanycola H.E. Moore	13010A
Livistona brassii Burret	5950*
Livistona crustacea Burret	7668*
Livistona melanocarpa Burret	6310*
Nengella gracilis Burret (= *Gronophyllum gracile* (Burret) Essig & Young)	7083
Nengella rhomboidea Burret (= *Gronophyllum pinangoides* (Becc.) Essig & Young)	7201*
Orania archboldiana Burret	8225
Orania brassii Burret	5489* (isolecto)
Orania distichia Burret	5599* (isolecto)
Paralinospadix amischus Burret	3826*
Paralinospadix merrillianus Burret	6815* (syntype)
Ptychandra montana Burret	4974*
Ptychococcus archboldianus Burret	7218*
Ptychococcus archboldianus var. *microchlamys* Burret	8166*
Rehderophoenix pachyclada Burret (= *Drymophloeus pachycladus* (Burret) H.E. Moore)	2720* (isotype)
Rhopaloblaste brassii H.E. Moore	13305
Strongylocaryum brassii Burret (= *Ptychosperma salomonense* (Burret)	3481* (isotype)
Strongylocaryum latius Burret (= *Ptychosperma salomonense* Burret)	3361* (isotype)
Strongylocaryum macranthum Burret (= *Ptychosperma salomonense* Burret)	2956* (isotype)

Brass's palm specimens invariably comprise several sheets of material. The specimens are generally fertile (flowers and/or fruit) and may comprise portions of the leaf, the bracts enclosing the inflorescence, parts of the inflorescence, and seed. The label data contain extra information as to the size of the palm and proportions of the leaves and inflorescence, as well as colors of the various parts. It is not immediately clear whether Burret had only the specimens available to him when he drew up the numerous descriptions, or whether Brass also supplied him with photographs of some collections. Certainly Moore (1969) had use of these photographs for his work on *Heterospathe*, and a Len Brass habitat picture of *Rhopaloblaste brassii* accompanies its description (Moore 1970). In the Brass archives at the Queensland Herbarium, there are numerous labelled photographs of plants that Brass collected, including palms. These archival photographs would be of great interest to workers on the palms of New Guinea as they could represent trees that were used in the preparation of the type specimens.

Acknowledgments

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CHAPTER NEWS AND EVENTS (*Continued from p. 137*)

New Hawaiian *Pritchardia* Garden Dedication

On March 6, at the University of Hawaii at Hilo, 150 people gathered for the dedication of the three-acre *loulu* (*Pritchardia*) garden. The *loulu* garden is one increment of a larger botanical garden at the university that will include a worldwide palm collection organized geographically. The garden is the brainchild of Hawaii Island Chapter member and Professor of Biology Dr. Don Hemmes. Dr. Hemmes and other volunteers have been planning the garden, clearing the site, and planting palms for one and one-half years. Assisting Don have been university students Lauren Wilson, Steve Zeiher, and Matt Cohen, and university employee Deborah Scott.

The *loulu* garden contains all 19 species of *Pritchardia* listed in *Manual of Flowering Plants of Hawai'i*, some of which are very rare. To discourage theft, the plants will be left unlabelled until they become too large to steal. Overall there are 60 specimens. After the dedication ceremony, the University Chancellor planted a *Pritchardia viscosa*.

Across campus, Don and his volunteers are preparing a worldwide palm garden that will extend approximately one-half mile on each side of Wailoa Stream, so that when the garden is complete, a total of about a linear mile of palms will line the river. An increment of African palms was recently completed, and planting of palms of the Philippines and New Caledonia began April 2. Awaiting their permanent places in the sun are specimens of approximately 200 palm species in 5-gallon containers, with more being added all the time. After the palms, Don plans a bamboo garden, an authentic recreation of a Hawaiian village, with ethnobotanical garden and a hibiscus garden.

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Louisiana Chapter News

The Louisiana Chapter of the IPS met on March 16 at the Audubon Zoo in New Orleans. Members were treated to a complimentary tour of the zoo following the meeting. Aside from a splendid display of exotic and native fauna, the flora at the zoo includes some interesting palm species. Thanks to Stephen Trans Asprodites, Director of Horticulture of The Audubon Institute for providing this fine meeting site.

The Louisiana Chapter plans an extensive "palm planting" exercise for the New Orleans area this spring and summer.

Northern California Chapter News

The Northern California Chapter of the IPS held their first meeting of 1997 on May 18th at Ian and Jane McDonald's garden in San Rafael.

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