

A New, Large-Flowered *Licuala* from New Guinea

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As part of the Palms of New Guinea project we discovered a species of *Licuala* new to science with large white flowers, which is described here for the first time.

With more than 130 species, *Licuala* is one of the most diverse genera of palms in the Indo-Pacific, second only to *Calamus*. As a result of intensified research for the Palms of New Guinea project (Baker 2002), we have recorded 25 species on New Guinea and adjacent islands, several of which are new to science. The New Guinea representatives of *Licuala* contain many surprises both in their inflorescences, flowers and fruits. This is epitomized in earlier described species such as *L. longispadix*, which has 4–4.5 m long infructescences, partly lying on the forest floor, with 2–2.5 cm long fruits with 3-ridged endocarps (Banka & Barfod 2004). The species that we describe here has gone unnoticed since it was collected for the first and only time in 1957, by the Dutch botanist Christian Versteegh (1913–1983). It is highly aberrant from all other species of *Licuala* by having

flowers more than 2 cm long, a record not only for the genus, but for all the genera placed in the tribe Trachycarpeae. Unfortunately, the original collection did not include fruits, thus the size and morphological details of these remain unknown.

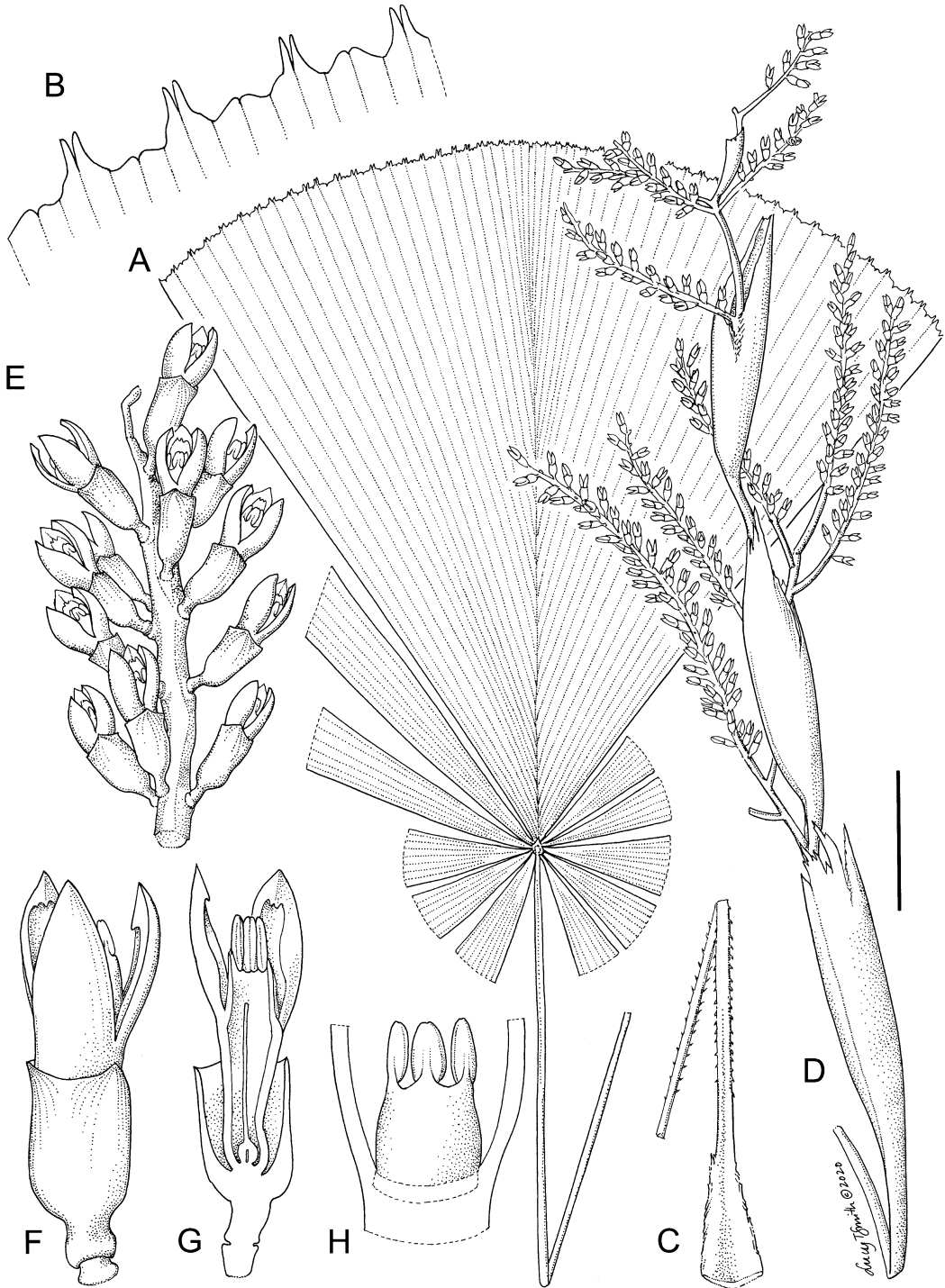
Licuala heatubunii Barfod & W.J.Baker, sp. nov. Type: INDONESIA. West Papua Province: Jayapura Regency, Ayapo village, 80 m, 2°36'S, 140°34'E, 4 April 1957, Versteegh BW 4711 (holotype L!; isotype CANB!) (Fig. 1)

Diagnosis: Differs from all other *Licuala* species by the size of the large flowers varying from 2.0–2.5 cm long and the alternating deep and shallow indentations of the leaf mid-segment. *Licuala heatubunii* differs from *L. crassiflora* by having loosely sheathing rachis bracts, truncate calyx and uniseriate stamens.

Solitary palm ca. 2 m tall. **Stem** ca. 7 cm in diam. **Leaves** 11 in crown; sheath 50–60 cm long tubular, eventually breaking up into a brown fibrous mesh; petiole variable in length up to 250 cm long, basal 40–50 cm armed with up to 5 mm long, turbinate spines, covered with minute ferruginous ramenta; lamina rounded in outline, 130–150 cm across, glabrous above, below with minute ferruginous scales increasing in density towards major veins and

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1. *Licuala heatubunii*. A. Leaf; B. Detail of the apical margin of the mid segment; C. leaf base; D. Inflorescence; E. Part of rachilla with flowers at anthesis; F. Flower; G. Flower in longitudinal section; H. Detail of flower showing staminal ring. A–H from Versteegh BW 4711. Scale bar: A, C = 15 cm, B = 3 cm, D = 9 cm, E = 1.5 cm, F, G = 7.5 mm, H = 4 mm.

towards the eccentric hastula, divided into 7–11 segments; mid segment with 30–35 adaxial ribs, 65–75 cm long, truncate at the apex and 28–30 cm wide, indentations alternating between 3–10 mm deep and 1–4 cm deep, the remaining segments with 3–9 adaxial ribs, basal segment 70–75 cm long, obliquely truncate at the apex, basal segments with generally deeper indentations than mid-segment. **Inflorescence** 80–100 cm long, branched to the second order with 4–5 first order branches; peduncle 20–25 cm long, covered by short ferruginous felt-like indumentum; prophyll 20–25 cm long, brownish chartaceous, splitting irregular apically and partly resolved in fibrous mesh; peduncular bracts lacking; rachis slightly sinuous, not exposed; proximal rachis bracts 23–27 cm long, inserted 20–25 cm above prophyll, brownish chartaceous, with ferruginous hairs increasing in density towards the base, tightly fitting proximally for 8–10 cm to loosely fitting distally, splitting irregular apically and partly resolved in fibrous mesh, main axis of proximal first order branch 1–5 cm long, carrying 3–5 rachillae, these 20–30 cm long and covered with scattered ferruginous hairs. **Flowers** 50–80 on longest rachillae, solitary, borne on flattened tubercles, 20–25 mm long, sausage-shaped in bud; calyx 9–11 mm long, distal 2/3 free of receptacle, expanded and loosely fitting, glabrous, truncate to slightly sinuous; corolla 17–19 mm long, glabrous, white, lobes 8–9 mm, cuculate; androecial ring 3–4 mm high, fused with the corolla in basal 9–10 mm, anthers sessile, inserted in one level, elongate, about 2.4–2.6 mm long; ovary glabrous, globose, 1.5–2.5 mm long; style about 7.5 mm long. **Fruits** unknown.

Common Name: *Jaiboh* (Sentani language).

Etymology: The species epithet recognizes the great contributions to the study of New Guinean palms made by Prof. Charlie D. Heatubun of Universitas Papua, Manokwari, Indonesia.

Conservation: Data deficient (DD). The distribution and abundance of this species are insufficiently known. The most recent Google Earth imagery reveals that the area of the type locality has been heavily impacted by forest clearing, which raises concern for the survival of this species.

Notes: Collected only once in 1957 by Versteegh, who noted that this species was rather common in periodically flooded forest on silty soil. Obviously refinding this species and assessing its population in the wild should be a high priority. The type locality is situated near the village of Ayapo on the south bank of Lake Sentani, only a few hours drive from Jayapura.

Acknowledgments

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LITERATURE CITED

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