

10. *Calyptrocalyx geonomiformis* (Becc.) Dowe & M.D. Ferrero, *comb. nov.*

Linospadix geonomaeformis Becc., Nova Guinea 8 (1909) 211, t. 51, 1. — *Paralinospadix geonomiformis* (Becc.) Burret, Notizbl. Bot. Gart. Berlin-Dahlem 12 (1935) 335, syn. nov. — Type: *Versteeg 1627* (holo FI), Indonesia, Papua, Paniai Division, Mt Resi, 250 m, 1907.

Solitary or clustering, small palms. *Stems* to 1 m tall, 12–14 mm diam.; internodes 2–2.5 cm long. *Leaves* bifid or irregularly segmented, 45–55 by 28–30 cm; leafbase to 27 cm long, slightly swollen, with scattered orange-brown appressed scales, margins lacerate-fibrous; petiole 4–11 cm long, shallowly channelled adaxially; rachis rounded on both sides, with scattered orange-brown appressed scales; lamina when bifid, cuneate, broadly attached to the rachis, 16–18 ribs per side raised on adaxial surface, with brown scales abaxially; when segmented with 2 or 3 segments per side, basal and apical segments broad, 31–40 by 5–8 cm, falcate-acuminate, terminally acute, apex dentate, segments and ribs strongly curved toward the leaf apex, mid-leaf segments much narrower, 31–35 cm by 10–12 mm with a single rib; lamina chartaceous, rigid, dark green adaxially, lighter green abaxially. *Inflorescence* 40–60 cm long, 1- or 2-spiked; prophyll 8 cm long; peduncular bract 21–26 cm long, membranous, disintegrating into marcescent fibres; peduncle 36–48 cm long, 2–3 mm diam., dorsiventrally compressed with acute margins, surface with reddish scaly tomentum; rachilla 18–20 cm long, broadly-fusiform, 5–6 mm wide in the middle; floral pits congested, deep, with reddish scaly tomentum. *Staminate flower* ovoid in bud, 4–5 mm long, slightly asymmetrical; stamens 6, equal, erect; filaments linear; anthers narrowly sagittate, apex obtuse or obscurely bidentate, versatile; pistillode elongate, about as long as the stamens, trigonal, apex trifid. *Pistillate flower* ovoid, c. 3.5 mm long, sepals c. 1.5 mm long, rounded; petals c. 3 mm long, apex briefly apiculate; stigma broadly triangular; staminodes 6, equal. *Fruit* not seen.

Distribution — Indonesia: Papua: Paniai Division. Mt Resi and Mt Carstensz.

Habitat & Ecology — In rain forest at 250–1000 m.

Etymology — The specific epithet is from *geonoma*, and possibly relates to the resemblance of the leaf to some species in the genus *Geonoma* Willd.

Note — *Calyptrocalyx geonomiformis* has a distinct leaf morphology with the ribs in all segments strongly curved toward the leaf apex. This feature is known to occur in only one other species, *C. julianettii*, from Central Province, Papua New Guinea, although differences in inflorescence structure indicate that these are two readily differentiated species. The inflorescence of *C. geonomiformis* is 1- or 2-spiked, with the rachilla considerably thicker than the peduncle, and that in *C. julianettii* is consistently 4-spiked with the rachilla scarcely thicker than the peduncle. In addition, the petiole of *C. geonomiformis* is moderate to elongate, while it is absent to very short in *C. julianettii*.

11. *Calyptrocalyx hollrungii* (Becc.) Dowe & M.D. Ferrero, *comb. nov.*

Linospadix hollrungii Becc. in K. Schum. & Hollrung, Fl. Kais. Wilhelmsl. (1889) 16. — *Paralinospadix hollrungii* (Becc.) Burret, Notizbl. Bot. Gart. Berlin-Dahlem 12 (1935) 334, syn. nov. — Type: *Hollrung 226* (holo B†; iso and illustrations FI), Papua New Guinea, Morobe Province, Sattelberg, 1886.

Linospadix hellwigiana Warb. in K. Schum. & Lauterb. (nomen tantum, 'in Mons. ined.'). Fl. Deutsch. Schutzgeb. Südsee (1900) 206 [as *Linospadix helwingianus* Warb. (nomen) in Becc.,