

10–21 per side, 40–45 cm by 14–18 mm, becoming smaller toward the apex, regularly arranged, evenly spaced, subopposite to alternate, broadly sigmoid or narrowly lanceolate to falcate, cupped, apically caudate with a filamentous drip tip, dark green adaxially, lighter green abaxially, two apical pinnae briefly basally joined, midrib prominent adaxially, secondary veins prominent abaxially. *Inflorescence* 75–100 cm long, 1-spiked, rigid, arching; prophyll to 13 cm long, held within the leafbase; peduncular bract to 30 cm long; peduncle 57–75 cm long, 2–8 mm diam., terete, glabrous; rachilla 10–35 cm long, c. 12 mm diam., fusiform, glabrous, light brown; floral pits widely spaced, shallow, triangular, margins raised and medially split. *Staminate flower* to 5 mm high, white; sepals c. 2 mm long, glossy, glabrous; petals 4–5 mm long; stamens 10–16, c. 6 mm long; anthers shallowly sagittate, versatile; pollen mostly elliptical in polar view, long axis 36.2–39.8 μm , short axis 18.1–23.5 μm , monosulcate, exine finely reticulate. *Pistillate flower* to 5 mm high. *Fruit* ovoid, beaked, 9–11 mm long, c. 6 mm diam., scarlet red; epicarp smooth, minutely granular when dry; mesocarp succulent; endocarp membranous. *Seed* ovoid, c. 8 mm long, c. 5 mm diam.; endosperm ruminant.

Distribution — Papua New Guinea: W and E Sepik Provinces, Hunstein Mts, April River, Waskuk Hills, and Wasissi (Torricelli Mts).

Habitat & Ecology — In rain forest at 100–1000 m.

Etymology — The specific epithet is from *poli* – many, and *phyllus* – leaves, and refers to the numerous pinnae of the leaf.

Vernacular names — Giagiaiu (Baihinemo language – Wagu, Hunstein Mts, E Sepik Province), apolop (Waskuk language – Ambunti, Waskuk, E Sepik Province), pirare (Waskuk language – E Sepik Province), peliah (Brrinhimo language – Upper April River, E Sepik Province), belin eddi (Wasissi language – Wasissi, W Sepik Province).

Notes — 1. *Calyptrocalyx polyphyllus* is distinguished by a clustering habit, regularly pinnate leaves with usually caudate but infrequently lanceolate pinnae that terminate in a prominent drip tip, solitary inflorescence, ovoid fruit, and ruminant endosperm. The type of *C. polyphyllus*, *Ledermann 8310*, was destroyed in the burning of the Berlin Herbarium during the Second World War. The collection *Pullen 1374* is chosen as the neotype because the description bears very close resemblance and the specimens were collected at the same locality.

2. Stems are used to make spears by Hunstein Mts and April River people.

3. The staminate flowers have an odour like Ponds hand cream.

23. *Calyptrocalyx pusillus* (Becc.) Dowe & M.D. Ferrero, *comb. nov.*

Linospadix pusillus Becc., *Webbia* 1 (1905) 295. — *Paralinospadix pusillus* (Becc.) Burret, *Notizbl.*

Bot. Gart. Berlin-Dahlem 12 (1935) 334, syn. nov. — Type: *Armit s.n.* (holo FI), Papua New Guinea, Milne Bay Province, summit of Mt Dayman, 2700 m, May 1894.

Solitary or clustering, diminutive ‘elfin’ palms. *Stems* 1–4, erect, leaning or decumbent, 12–100 cm tall, 5–6 mm diam.; internodes 12–20 mm long; crown with 4–7 leaves. *Leaves* bifid or irregularly segmented, 20–50 by 7–12 cm; leafbase 5–10 cm long, glabrous, margins densely lacerate-fibrous; petiole 5–18 cm by 2–3 mm, shallowly channelled adaxially; bifid leaf deeply furcate, cuneate with 7–9 ribs per side, prominent adaxially, less so abaxially; segmented leaves with 1 or 2 segments per side, one side

with two segments, other side undivided, the division between segments 6–12 mm wide; lamina dark green adaxially, lighter green abaxially, abaxial ribs densely silver lepidote. *Inflorescence* 15–60 cm long, 1-spiked, filiform, erect, rigid; prophyll 4–13 cm by 3–7 mm, densely scaled; peduncular bract 10–28 cm long, densely scaled; peduncle 9–40 cm by 0.5–2 mm, subterete, densely scaled; 1–3 triangular rameal bracts in the distal portion; rachilla 4–21 cm long, 1–3 mm diam.; floral pits shallow, widely spaced. *Staminate flower* c. 2 mm high; sepals c. 0.5 mm long, carinate, petals c. 2 mm long, obtuse; stamens 8; filaments c. 2 mm long; anthers versatile; pollen mostly elliptical in polar view, long axis 25.3–30.8 μm , short axis 19.9–23.5 μm , monosulcate, exine finely reticulate. *Pistillate flower* c. 2 mm high, subglobose to ovoid; sepals c. 0.6 mm long; petals c. 2 mm long, obtuse, apiculate. *Fruit* ellipsoid, beaked, 8–11 mm long, 3–5 mm diam., red; epicarp smooth; mesocarp dry, fibrous, fibres congested toward the endocarp; endocarp membranous. *Seed* ellipsoid, c. 7 mm long, c. 4 mm diam.; endosperm homogeneous.

Distribution — Papua New Guinea: Milne Bay Province, Maneau Range, and Mt Dayman.

Habitat & Ecology — In cloud forest at 1000–2000 m.

Etymology — The specific epithet is from *pusillus* – very small, and refers to the diminutive habit.

Note — *Calyptrocalyx pusillus* is the smallest species in the genus and one of the smallest palm species in the family. It is distinguished by a clustering habit, bifid or irregularly segmented leaves, solitary-spiked inflorescence, small ellipsoid fruit, and homogeneous endosperm.

24. *Calyptrocalyx sessiliflorus* Dowe & M.D. Ferrero

Calyptrocalyx sessiliflorus Dowe & M.D. Ferrero, *Wodyetia* 4 (1999) 11.

Linospadix leptostachys Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 11 (1933) 711. — *Paralinospadix leptostachys* (Burret) Burret, *Notizbl. Bot. Gart. Berlin-Dahlem* 12 (1935) 335. — Type: *Mayr* 497 (holo B†; iso BO), Indonesia, Papua, Jayapura Division, Cyclops Mt, 900 m, Aug. 1928.

Solitary, small palms. *Stem* erect, 0.5–1 m tall, 5–8 cm diam; internodes 10–15 mm long, dark green; crown with 8–10 leaves. *Leaves* bifid, 30–110 by 17–26 cm; leafbase 11–15 cm long, glabrous, margins moderately lacerate-fibrous; petiole 13–20 cm by 5–7 mm, deeply channelled adaxially, glabrous; lamina oblong to lanceolate, papyraceous, rigid, glossy dark green adaxially, much lighter green abaxially, margin straight to slightly curved, 7–9 ribs prominent on adaxial surface, not raised abaxially, densely brown lepidote abaxially. *Inflorescence* 44–75 cm long, 3–7-spiked, erect to curving, rigid; bracts not seen; peduncle 18–56 cm by 0.5–1.5 mm, with patchy brown deciduous scales; rachilla 12–20 cm long, c. 1.6 mm diam.; floral pits shallow to flat on the surface, very widely spaced, lips slightly raised. *Flowers* sessile. *Staminate flower* c. 2 mm long, asymmetric in bud; sepals c. 1 mm long, carinate, longitudinally striately-nerved, dark brown; petals c. 2 mm long, white to pink, apically obtuse, outside striately-nerved; stamens 9 or 10; filaments 1.5–2 mm long; anthers linear, deeply sagittate, versatile. *Pistillate flower* globose, c. 1 mm high; sepals c. 0.2 mm long, broadly round, outside longitudinally striate; petals c. 1 mm long, basally dilated, apex triangular, outside densely longitudinally striate; staminodes many, narrow. *Fruit*