

watery, fibres aggregated and compacted toward the endocarp. *Seed* fusiform to falcate, c. 15 mm long, c. 7 mm diam.; endosperm homogeneous.

Distribution — Papua New Guinea: W Sepik Province, Torricelli Mts.

Habitat & Ecology — In rain forest at c. 600 m.

Etymology — The specific epithet is from *lax* – loose or well spaced, and *florus* – flowers, and refers to the wide spacing of the flowers.

Vernacular name — Timenum (Olo language – Torricelli Mts).

Notes — 1. *Calyptrocalyx laxiflorus* is the only species in which mature plants may be acaulescent. The species is usually solitary, but infrequently clustering, with regularly pinnate leaves, caudate pinnae, multi-spicate inflorescence, ellipsoid fruit, and homogeneous endosperm. Seedling leaves have a metallic silver lustre that fades with maturity of the plant.

2. The type of *C. laxiflorus*, *Schlechter 14312*, was destroyed in the burning of the Berlin Herbarium during the Second World War. The collection *Barfod 396 with Ferrero & Damborg*, from the same locality and closely resembling the original description, is chosen as the neotype.

### 15. *Calyptrocalyx lepidotus* (Burret) Dowe & M.D. Ferrero, *comb. nov.*

*Paralinospadix lepidotus* Burret, J. Arnold Arbor. 20 (1939) 199, syn. nov. — Type: *Brass 7316* (holo A; iso BRI), Papua New Guinea, Western Province, Palmer River, 2 miles below junction with Black River, 100 m, July 1936.

Solitary, moderate palms. *Stem* erect, 4–10 m tall, 2.5–4 cm diam.; internodes elongate, purplish green to brown; crown with 10–12 leaves. *Leaves* regularly pinnate, 80–160 cm long, new leaf emerges brown; leafbase to 24 cm long, with patches of dark scaly tomentum, margin finely lacerate-fibrous; petiole 44–64 cm by 6–7 mm, channelled adaxially, with dense dark scaly tomentum; rachis densely lepidote; pinnae 6–12 per side, opposite to subopposite, 17–40 cm long, 3 or 4 basal and 2–4 apical pinnae laterally joined, midleaf pinnae to 5 cm wide, oblanceolate, very slightly falcate, caudate, midrib prominent adaxially, numerous secondary veins prominent abaxially, lamina rigid, dark green adaxially, brown lepidote abaxially. *Inflorescence* 125–140 cm long, 1–7-spiked, pendulous; prophyll 30 cm long; peduncular bract papyraceous, very densely lepidote; peduncle c. 70 cm by 2–3 mm, densely lepidote; rachilla 26–70 cm long, 3–3.2 mm diam., very densely lepidote with scales long and twisted; floral pits congested. *Staminate flower* ovoid in bud, 2.5 mm high, sepals c. 1 mm long, basally carinate, apex broadly rounded, briefly cupular; petals c. 2 mm long, elliptical to triangular, apex obtuse; stamens 6; filaments c. 2 mm long; anthers linear, deeply sagittate, versatile; pistillode c. 2 mm long, columnar. *Pistillate flower* globose, 2–3 mm high; sepals c. 1 mm long; petals 2–3 mm long, broadly rounded, pouched, ovate, apex briefly triangular, outside densely nerved. *Fruit* ellipsoid, 8–9 mm long, 4–4.5 mm diam., red; epicarp smooth, coarsely granular when dry; mesocarp densely fibrous, fibres evenly distributed. *Seed* subglobose, c. 4 mm diam.; endosperm homogeneous.

Distribution — Papua New Guinea: Western Province, Palmer River, Fly River, and Black River

Habitat & Ecology — In rain forest at 50–80 m.

**Etymology** — The specific epithet is from *lepidotus* – scaled, and refers to the densely lepidote inflorescence axes and bracts.

**Note** — *Calyptrocalyx lepidotus* is distinguished by the densely lepidote petiole, rachis, inflorescence and peduncular bract, pinnae brown lepidote on the abaxial surface, 1–7-spiked inflorescence, a densely fibrous mesocarp and homogeneous endosperm.

## 16. *Calyptrocalyx leptostachys* Becc.

*Calyptrocalyx leptostachys* Becc., *Webbia* 1 (1905) 306. — Type: *Loria s.n.* (holo FI), Papua New Guinea, Central Province, 'Towards Mt Yule', 17 Dec. 1890.

Solitary, small palms. *Stem* 2 m tall, 10–20 mm diam.; internodes elongate. *Leaves* irregularly segmented with pinnae united, 50–70 cm long; leafbase to 25 cm long, margins densely lacerate-fibrous, particularly at the apex; petiole 8–10 cm by 4–10 mm, adaxially shallowly channelled; rachis 25–60 cm long, with sparse orange-brown scales; pinnae 3–10 per side, single or united, alternate, narrowly-lanceolate, gradually tapered, apex acuminate, chartaceous, green adaxially, lighter green abaxially, largest 30 by 3 cm, ribs 5–7, prominently raised adaxially, not so prominent abaxially, marginal veins thicker than secondary veins, distal pinnae narrow and short, terminal segments uneven. *Inflorescence* 60–70 cm long, 2-spiked, filiform; peduncle c. 4 mm wide; rachilla c. 4 mm diam.; floral pits shallow, lower lip rounded, crescentic. *Staminate flower* to 5 mm long; stamens c. 15. *Pistillate flower* globose in bud, c. 4 mm long; sepals c. 2 mm long, ovate, moderately concave, striate, dorsally ridged, thick at the apex; petals c. 3 mm long, semiorbicular, triangular, pointed at the apex, striately-nerved throughout; staminodes 6, well spaced, small. *Fruit* globose to obovoid, 16–17 mm long, c. 12 mm diam., attenuate at the base, colour not known; epicarp smooth, thin, minutely granular when dry; mesocarp fibrous, layered and compact. *Seed* globose, c. 9 mm diam.; endosperm ruminant.

**Distribution** — Papua New Guinea: Central Province, Mt Yule.

**Etymology** — The specific epithet is from *lepto* – slender, and *stachys* – spiked.

**Note** — *Calyptrocalyx leptostachys* is distinguished by a solitary habit, multi-spiked inflorescence, globose to obovoid fruit, and ruminant endosperm. It is not a well-known species, with only two collections additional to the type having been made.

## 17. *Calyptrocalyx merrillianus* (Burret) Dowe & M.D. Ferrero, *comb. nov.*

*Paralinospadix merrillianus* Burret, *J. Arnold Arbor.* 20 (1939) 201, syn. nov. — Type: *Brass 6815* (holo A; iso BRI), Papua New Guinea, Western Province, Fly River, '528 mile Camp', just S of Palmer River junction, 80 m, May 1936.

Clustering, small palms. *Stems* 2 or 3, 2–4 m high, to 13 mm diam.; internodes elongate; crown with 7–9 leaves. *Leaves* regularly pinnate, 80–200 cm long; leafbase 30 cm long, glabrous, margin lacerate-fibrous; petiole 14–24 cm by 10–12 mm, channelled to flat adaxially; rachis dark lepidote; pinnae 14 or 15 per side, regularly arranged, basal 1 or 2 very narrow, all but the apical pinnae with strong midrib, prominent adaxially and abaxially, flatly lanceolate linear to sigmoid, becoming falcate toward the apex, finely acuminate, dark green adaxially, lighter green abaxially, 2 or 3 secondary