## Daemonorops polita E. Fern., sp. nov.

Fig. 4

Structura inflorescentiae et bracteis secondariis tertiariisque saepe findentibus *D. ruptili* Becc. var. *ruptili* affinis sed habitu solitario, vagina folii spinis complanatis latioribus basi tumidis in verticillis partialibus dispositis, geniculo conspicuo, foliolis confertioribus, subtus 3-nervis setosis, fructu rotundiore differt; *D. ruptili* Becc. var. *acaulescenti* Dransf. idemque affinis sed habitu et folio differt. *Typus:* Mindanao, Zamboanga Peninsula, La Paz, *Fernando 575* (holotypus LBC; isotypi BH, K).

Robust, clustering, pleonanthic, dioecious rattan. Stems climbing to 15 m, stem without sheaths to 2.5 cm dia., with sheaths to 4 cm dia., internodes to 22 cm long. Leafsheaths covered with reddish-brown indumentum and armed with pale yellowish, laminar spines to 4 cm long, to 1 cm broad at base, rigid, arranged in partial whorls, generally horizontal or reflexed; knee conspicuous, only sparsely armed with shorter laminar spines, or generally smooth; ocrea inconspicuous. Leaf cirrate to 3 m long including cirrus to 1 m long; cirrus armed with grapnel spines; petiole yellowish in colour, to 20 cm long, semi-circular in section, slightly concave on adaxial side especially near base, convex on abaxial side, to 2.5 cm wide, 1 cm thick near base, armed with laminar spines to 3 cm long, arranged in groups along the edges and abaxial surface and with shorter spines to 1.5 cm long on adaxial surface, all spines on petiole decreasing in size distally; abaxial surfaces of petiole and rachis yellowish, covered with indumentum as the leafsheath; rachis at mid-portion nearly triangular in section, bifacial above, smooth or only sparsely armed with short spines, flattened or convex below and armed with rigid graphel spines to 8 cm apart. Leaflets to 85 on each side of the rachis, coriaceous, stiff, regularly arranged, rather closely set to 1.7-2.0 cm apart, linear-lanceolate, bright green, concolorous; adaxial surface glabrous to sparsely bristly along mid- and side costae, especially toward leaflet tip, the margins armed with short bristles to 1 mm, often in pairs, transverse veinlets rather indistinct; abaxial surface armed with bristles to 2 mm long, very closely set along mid-costa and sparsely set to 3-20 mm apart along two side costae: basal leaflets to 15  $\times$  0.8 cm; mid-lamina leaflets to 32  $\times$  2.7 cm, the tips often with a brittle mucro to 1.5 cm long; apical leaflets to  $25 \times 1.0$  cm, smaller, rudimentary leaflets occasionally present. Staminate inflorescence erect, to 70 cm long, with up to 14 partial inflorescences spaced to 4-8 cm apart, decreasing in size distally; peduncle c.  $10 \times 1.3$  cm to the prophyll scar, flattened and 2-keeled, covered with reddish-brown indumentum and armed with rigid laminar spines to 1.5 cm long; prophyll c.  $32 \times$  $2 \text{ cm}, \pm \text{woody-textured}$ , but brittle when dry, very densely covered with reddishbrown indumentum, only sparsely armed with short spines to 8 mm and mainly along edges, splitting down middle portion; other primary bracts decreasing in size distally.  $\pm$  armed as the prophyll but even more sparsely so, covered with indumentum as the prophyll; prophyll and other primary bracts subtending a partial inflorescence. all caducous at anthesis; basal partial inflorescence to 10 cm long with up to 12 crowded rachillae, each 2.5–3.0 cm long  $\times$  0.6 cm wide, subtended by a persistent bract with a distinct triangular limb to 1.5 cm long, often tattering, each rachilla bearing up to 15 distichously arranged bracts, each subtending a flower, alveolus of flower to 3 mm dia., apical partial inflorescence simple, unbranched. Staminate flower to  $6 \times 3$  mm, cylindrical in bud; calyx greenish, 3-lobed, with basal tube to 3 mm, and triangular lobes to 1.5 mm; corolla yellowish-brown, with short basal tube and 3 petals to 5  $\times$  2.5-3.0 mm; stamens 6 with free filaments, white, to 6 mm long at anthesis, anthers yellow to  $3 \times 1$  mm; pistillode to 2 mm long, trifid. Pistillate inflorescence as the staminate but more robust, peduncle slightly longer, and prophyll does not subtend a partial inflorescence; whole inflorescence arching when in fruit; rachilla c.  $4 \times 0.8$  cm, covered with reddish-brown indumentum, rachilla bracts with a prominent triangular limb to 6 mm; alveolus of sterile staminate flower c. 2 mm



Fig. 4. Daemonorops polita E. Fern. — A. sheathed stem, ×2/5; B. petiole, ×2/5; C. mid-portion of leaf, ×2/5; D. leaf apex with cirrus, ×2/5; E. portion of infructescence, ×2/5; F. sterile staminate flower, ×3; G. pistillate flower, ×3; H. immature fruit, ×1 1/4. All from Fernando 575.

dia., that of pistillate flower c. 5 mm dia. Sterile staminate flower as the fertile but with undeveloped anthers. Pistillate flower c.  $8 \times 4$  mm; calyx tubular in basal 4 mm with three triangular lobes to  $2 \times 2.5$  mm; corolla with basal tube to 2 mm and three petals to  $4 \times 3$  mm; staminodal ring bearing 6 teeth to 2 mm long; ovary c.  $3 \times 2.5$  mm with three reflexed stigmas to 2 mm long. Fruit (immature) globose, c.  $1.3 \times 1.4$  cm, tipped with a beak to 5 mm; pericarp with 15 vertical rows of glossy, yellowish scales with prominent reddish-brown margins and mid-scale groove. Seed globose, c.  $1 \times 1$  cm; endosperm ruminate; embryo basal. Seedling leaf (eophyll) pinnate with 6 pairs of leaflets, each c.  $40 \times 4$  mm.

Distribution and Habitat: Mindanao (Zamboanga Peninsula); in dipterocarp forest at c. 600-800 m alt. Endemic.

Vernacular name: Lapa-utong.

Specimens Examined: Mindanao: Zamboanga Peninsula, La Paz, Fernando 575 (holotype LBC; isotypes BH, K), Fernando 719 (BH, K, LBC), Kabasalan, Dipala Mt, Ebalo 771 (BH).

This new species clearly belongs to Section *Piptospatha* and is most closely similar to *D. ruptilis* Becc. var. *ruptilis* of Borneo in the inflorescence structure and in the persistent, often splitting secondary and tertiary bracts. It is, however, distinguished by its generally solitary habit, in the leafsheath armed with broader-based laminar spines arranged in partial whorls, in the more conspicuous knee, in the more closely set regular arrangement of the leaflets, in the leaflets bristly on three nerves on the undersurface, and in the more rounded fruit. *D. polita* is also similar to *D. ruptilis* Becc. var. *acaulescens* Dransf. in the inflorescence structure and in the shape and glossiness of the fruit but the habit is quite different.

The specific epithet refers to the polished, glossy scales of the fruit.

## Acknowledgements

I should like to thank Dr John Dransfield of the Herbarium, Royal Botanic Gardens, Kew, England, for reading and commenting on the manuscript and for assistance with the Latin diagnoses. R.T. Camposano and E.A. Lapitan prepared the illustrations. Field work was supported, in part, by a University of the Philippines at Los Baños Basic Research Program Grant No. 85–4.