

*Calamus usitatus* var. *major* (Becc.) Merrill, Enum. Philipp. Fl. Pl. 1(2): 154 (1922).

*Calamus usitatus* var. *palawanicus* (Becc.) Merrill, Enum. Philipp. Fl. Pl. 1(2): 154 (1922).

With the contiguity of Sabah to the Philippines, it is not surprising that several rattan species hitherto known only in the Philippines should turn up in Sabah and vice versa. Unfortunately Philippine rattanology is cursed with the ambiguities of Blanco's *Flora de Filipinas* (1837). One of the four species described by Blanco is *Calamus usitatus*. Naves (1882), Beccari (1902), Merrill (1918) and Furtado (1935) have all interpreted Blanco's description differently. Although Merrill is rather slavishly and uncritically followed in the Philippines, his interpretation of *C. usitatus* does appear to be the most reasonable one. It seems important to clarify the nomenclature, while recording the presence of *C. usitatus* in Sabah for the first time.

Blanco's descriptions are usually sufficiently ambiguous for some feature of them to be equatable with almost any species. However, taking a reasonable combination of characters together with the local name and uses, Merrill equated *Calamus usitatus* with a common lowland ecirrate-leaved rattan usually bearing fascicled leaflets. He noted the similarity between *C. usitatus* and *C. gracilis* Blanco non Roxburgh (i.e. *C. blancoi* Kunth). Having seen a relatively wide range of specimens of *C. usitatus* in the herbarium and the field, I can claim this to be a very variable taxon in its size and leaflet orientation and that *C. blancoi* Kunth may be included as a synonym of *C. usitatus* Blanco. Furtado's equating of *C. usitatus* with *C. ramulosus* Becc. (Furtado 1935) is not satisfactory; there are too many discordancies in the equation. Furtado admits that Blanco's description does not fit *C. ramulosus* perfectly; in my opinion Merrill's arguments have a much sounder basis. The populations in Sabah consist of both slender and robust forms and closely resemble those observed by me near Puerto Princesa in Palawan in the possession of regular rather than fascicled leaflets. Beccari (1907) (under *Calamus mollis*) separated the Palawan populations as var. *palawanicus* Becc. transferred later by Merrill to *C. usitatus*. However, variation is so extensive throughout the range that I see little point in giving formal names to artificially isolated points in a continuum.

The synonymy is very extensive but it seems appropriate to cite it in full as so much confusion over this taxon has existed in the past.

7. ***Calamus hepburnii*** J. Dransf. sp. nov. cirrifera flagello vestigiali praedita, *C. pogonacantho* & *C. ulur* affinis sed foliis linearibus aggregatis infra dense setiferis, vaginis foliorum spinis dispersis tectis rugis scabridis carentibus, ocrea inconspicua recedit. Typus: Borneo, Sabah, *Dransfield* JD5745 (holotypus K; isotypus SAN).

Slender clustering rattan climbing to 20 m; stem without sheaths to 8 mm diam., with sheaths to 17 mm diam.; internodes 10–13 cm. Leaf sheaths dark green, covered in caducous scaly indumentum and armed with scattered large triangular spines to 10 × 10 mm with black hairy margins and hollowed-out bases, interspersed with much smaller hairy-margined spines to 3 × 1 mm; area above spines corresponding to the position of spines in the bud, free of indument, the sheath thus attractively parti-coloured when young. Knee conspicuous scarcely armed along the bulge, but armed as the

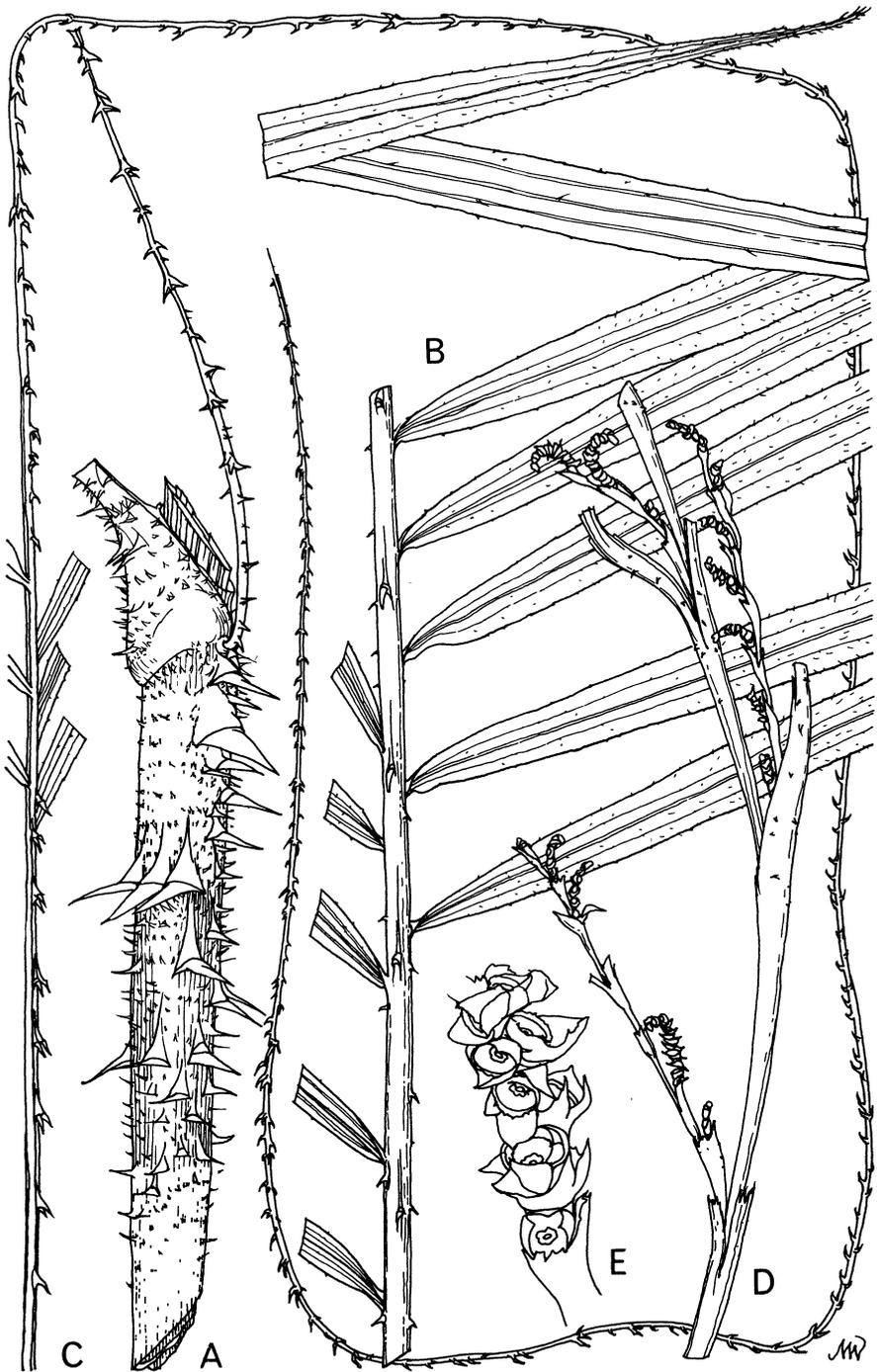


FIG. 4. *Calamus hepburnii*. **A** sheathed stem with vestigial flagellum  $\times \frac{2}{3}$ ; **B** mid-portion of leaf with grouped leaflets  $\times \frac{2}{3}$ ; **C** leaf apex  $\times \frac{2}{3}$ ; **D** portion of old staminate inflorescence  $\times \frac{2}{3}$ ; **E** detail of rachilla  $\times 4$ . From Dransfield JD5815. Drawn by Mary Millar Watt.

sheath on the lateral faces. Ocrea membranous, inconspicuous, to c. 1 mm. Vestigial flagellum present to 20 cm armed with horizontal triangular spines to 4 mm. Leaf cirrate to 2.2 m including the petiole to  $20 \times 0.7$  cm, and the cirrus to c. 1 m; petiole semi-circular in cross-section armed with short spines to 4 mm on all faces; cirrus armed rather densely with scattered reflexed spines, very rarely aggregated into grapnels; leaflets linear, to c. 32 on each side of the rachis arranged in 4–6 rather distant groups, but regularly arranged within the groups,  $\pm$  uniform in size throughout the leaf, to  $32 \times 1.3$  cm somewhat plicate, armed with sparse black bristles to 1.5 mm on 4 main veins but not the median vein on the adaxial surface, and very densely and conspicuously armed with brown bristles to 1 mm all over the abaxial surface. Staminate inflorescence to 65 cm, curving, known only in a dead state, borne just below the level of the knee; prophyll to 20 cm, closely tubular below but tattering above, densely armed with hairy-margined spines to 5 mm; other bracts on the axis similar, but smaller, all conspicuously lacerate, each including the prophyll subtending a first order branch to 25 cm, bearing deeply lacerate  $\pm$  unarmed bracts to 6 cm, each subtending a 2nd order branch; 2nd order branches to 7 cm bearing short lacerate triangular bracts to 4 mm, each subtending a rachilla; rachilla strongly curved and reflexed, to  $13 \times 2$  mm, bearing distichously arranged bracts, to 1.5 mm, c. 12 on each side, each subtending a low bracteole to 1 mm; areole of staminate flower to 1.2 mm diam. Other parts unknown. Fig. 4.

SABAH. Labuk & Sugut; slopes of Bt. Masasau, 50 m, *Dransfield et al.* JD5745 (holotype K; isotype SAN); Sapa-Payau F. R., Mile 75, Sandakan-Telupid, 100 m, *Dransfield et al.* JD5815 (K, SAN, SAR).

This species, named for Mr A. J. Hepburn whose arrangements for the rattan survey proved so efficient, is still incompletely known. It belongs to the group of species including *C. pogonacanthus* Becc. ex H. Winkler, *C. eriocanthus* Becc., *C. ulur* Becc., *C. mesilauensis* (described below), and *C. endauensis* J. Dransf. which bear a vestigial flagellum as well as a cirrus. *C. hepburnii* may be distinguished by its linear grouped leaflets, densely bristly on the abaxial surface, and the sheaths with scattered leaf sheath spines, and without scabrid ridges.

**8. *Calamus mesilauensis* J. Dransf. sp. nov.** cirrifera flagello vestigiali praedita, fructibus grandibus *C. pseudoulur* affinis sed gracilicaulis, foliolis parvis, vaginis foliorum spinis parvis triangularibus saepe aggregatis dense armatis differt. Typus: Borneo, Sabah, *Dransfield* JD5556 (holotypus K; isotypi L, SAN, SAR).

Slender clustering rattan with stems climbing to c. 10 m; stem without leaf sheaths c. 8 mm diam.; exceptionally to 10 mm, with sheaths c. 12–15 mm; internodes 12–20 cm long. Sheaths pale green, drying pale brown, armed with scattered large triangular dark brown spines to  $10 \times 5$  mm with swollen somewhat oblique yellowish bases and black hairy margins, interspersed with much smaller spines to  $3 \times 7$  mm, scattered or arranged in short horizontal or oblique groups; leaf sheath mouth membranous, fringed with stiff caducous blackish hairs to 3 mm; vestigial flagellum present, to 5 cm; knee conspicuous armed as the sheath; sparse caducous brown scaly indumentum present between spines. Leaf to 1.25 m including the cirrus to 70 cm; petiole very short, to 2–5 cm, sometimes larger in juvenile specimens,