

Korthalsia hispida Becc. in Malaya

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On 7th January 1973, while in Singapore, I accompanied Dr. E. A. Heaslett on a one day field trip to Gunung Pantii in Johore, Malay Peninsula. Despite bad weather, we were able to observe about 55 taxa of Palmae in the forest of Pantii East. This total indicates the richness of the palm flora: amongst those species observed was one novelty, a *Korthalsia* vegetatively distinct from all other Malayan species of *Korthalsia*.

Within the genus *Korthalsia* in Malaya (Furtado 1951) there are two types of ochrea (extension of the leaf sheath beyond the insertion of the petiole); in one type such as that found in *K. scaphigera* Griff., *K. echinometra* Becc. and *K. scortechinii* Becc. (see fig 1 a, b) the ochrea is swollen and hollow and forms a spiny chamber around the leaf sheath of the leaf above, and is favoured by ants as a nesting place. The relationship of the ants with the rattan has been described many times, and it seems likely that particular ants are specific to different *Korthalsia* species. In the other type as found in all other Malayan species of *Korthalsia* such as *K. flagellaris* Miq and *K. rigida* Bl. (see fig 1 c, d), the ochrea is not swollen and forms a tightly sheathing tube around the leaf sheath of the leaf above: this type of ochrea may remain entire or becomes split or tattered, and may be armed or unarmed.

The *Korthalsia* species new to the Malay Peninsula from Pantii East Forest Reserve, however, has a third type of ochrea, a type found in four species (see fig 1 e): *K. robusta* Bl. of Sumatra, *K. macrocarpa* Becc. of Borneo, *K. squarrosa* Becc. of the Philippines and *K. hispida* Becc. of Sumatra and Borneo. In these four species, the ochrea is shaped something "like an elongated ass's ear" (Beccari 1918): the ochrea is not sheathing, being open opposite the petiole, the two edges inrolling to produce an open-ended spiny tube, pale straw in colour, diverging from the axis at an angle of about 20 degrees. In *K. squarrosa* the ochreas are slightly different in that they do not diverge far from the stem, but the ochreas visible in Beccari's plate (Beccari loc. cit.) are just below an inflorescence and such ochreas are often slightly abnormal. Within this tube-like ochrea in the Sumatran and Bornean species, ants make their nests. When the rattan is touched, the ants within rustle in unison in each ochrea by banging their heads against the dry ochrea, each ochrea slightly out of phase with the next. I have only heard this rustling noise in *K. robusta*, *K. hispida* and *K. macrocarpa*; I have not heard it in *K. scaphigera* or *K. echinometra* and it is quite likely that the ant species in these last two are different.

The Gunung Pantı plant is indistinguishable from *Korthalsia hispida*, a misunderstood species from West Sumatra, Aceh, and Borneo, first collected by Beccari (P. S. 673 — Beccari 1884) at Ayer Mancur, West Sumatra, and later included by Beccari in *Korthalsia robusta* Bl. non Mart. (Beccari 1918). In July 1972 in Propinsi Jambi, Sumatra, (Dransfield in press) I found specimens of a *Korthalsia*, vegetatively fitting the description and plate of *K. hispida* but with inflorescences totally different from those of the widespread Sumatran taxon, *K. robusta*, the vegetative parts of which were unknown to Beccari. The Jambi specimens are identical to Meijer 2411, Nunukan, Borneo (Meijer 1956). There are hence two species in Sumatra, *K. robusta* and *K. hispida*, and Beccari appears to have confused the two in his monograph (1918) — the fertile specimens referred by Beccari to *K. robusta* belong to *K. robusta*; the vegetative specimens referred to *K. robusta* belong to another species originally described as *K. hispida*. In fact vegetatively *K. hispida* is more distinct than *K. robusta* and *K. macrocarpa* and it is quite possible that these last two represent one widespread variable species common to Sumatra and Borneo.

Because of the confusion in this group of *Korthalsia* it is considered useful to give a complete description of *Korthalsia hispida*. Although the relationship of *Korthalsia macrocarpa* and *Korthalsia robusta* is not yet clear, I am presenting this note in order to draw attention to this easily recognized group of *Korthalsia* species.

Korthalsia hispida Becc.

Beccari, in *Malesia II*, (1884) 71., Beccari, *Ann. Roy. Bot. Gard. Calc.* XII, 3 (1918) 148. Plate 99. Meijer, *W. Penggemar Alam* 36 (1957) 60, Fig 3.

Slender, clustering, thicket-forming rattan, branching at ground-level. Stems to 1.0 cm in diam. without sheaths, with sheaths 1.5–1.8 cm. Internodes 20–25 cm long. Sheaths bright shiny green when fresh, covered with sparse, scattered, shiny black spines to 2.0 cm long, easily breaking just above the base and minute c. 0.5 mm long, easily detached spiculae. When young, sheath covered with chocolate coloured scurfy indumentum. Ochrea 25–30 cm long, like a very narrow elongate horn, diverging at an angle of c. 20 degrees from the axis, shiny brown within, straw-coloured without, thorny-spiculate and indumentose as the leaf sheath, truncate and shallowly bilobed at the apex, papery in texture, open opposite the petiole, rolled, often filled with vicious biting ants. Leaf to 1.8 m long; cirrus to 90 cm, petiole to 10 cm. Petiole and rachis yellowish-green, semi-circular in cross section, to 5 mm wide, armed with scattered, reflexed black spines below, above, spines in groups 3–5 forming claws, separated by c. 3 cm, distance of separation decreasing above to c. 5 mm at tip of cirrus. Leaflets 7 on each side, alternate below, subopposite above, separated by 7–10 cm, with ansae 6 mm long, the lower two leaflets narrowly cuneate-rhomboid, to 3 cm broad, upper leaflets broader, 15–20 cm long by 7–9 cm broad, irregularly plicate, longly acuminate praemorse at upper margins, bright green above, grey-white indumentose below. Leaves subtending the terminal inflorescence much smaller.

Inflorescence system lax, terminal, single stems dying after flowering, the upper 3–8 nodes producing partial inflorescences. Partial inflorescences to 30 cm long, emerging through splits in the upper leaf sheaths; prophylls and other bracts tubular below, variously split and tattered above, 5–10 cm long, straw-coloured, papery, densely covered in chocolate-coloured indumentum and small spiculae. Bracts on axis subtending branches, each terminating in rhachillae, 2–6 in number.

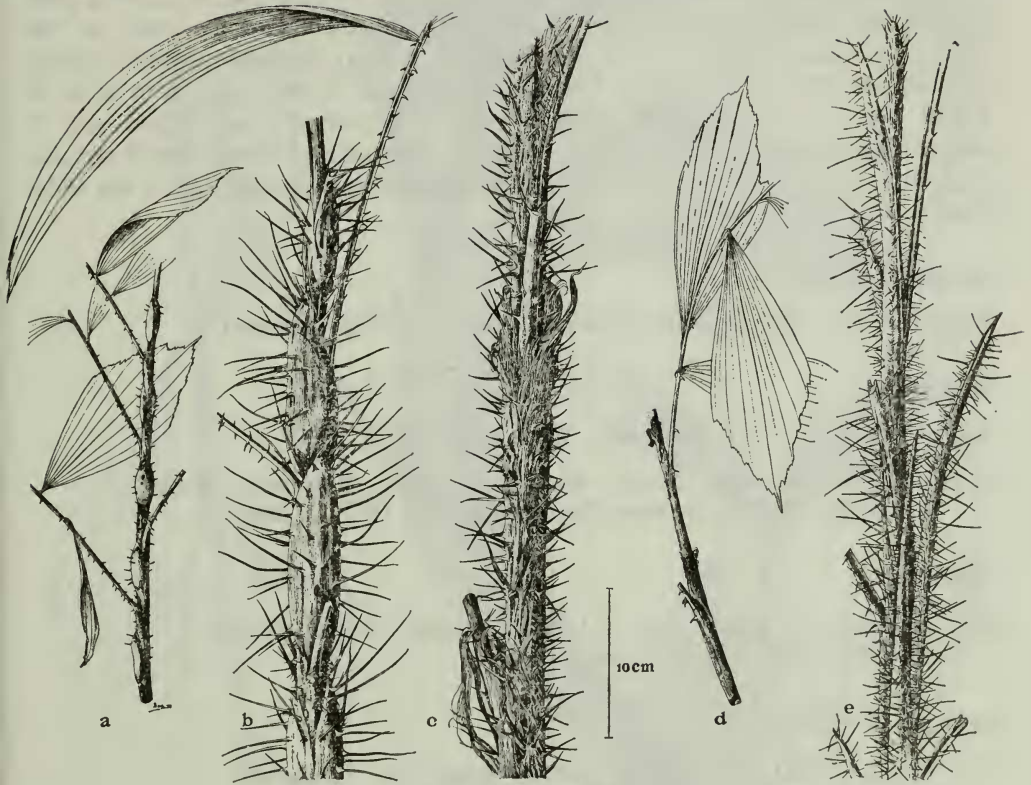


Fig. 1 OCHREA TYPES IN KORTHALSIA

Swollen ochrea: a) *K. scaphigera*, b) *K. echinometra*. N.B. hole made by ants. Non-swollen ochrea: e) *K. teysmannia* — ochrea spiny, d) *K. sp.* (? juvenile of *K. rigida*, from Dransfield 2725, Central Sumatra) — ochrea unarmed. Horn-shaped ochrea: e) *K. macrocarpa*. All but d from Kebun Raya, Bogor. Drawing by Damhuri.

Rhachillae pendulous, to 15 cm long, 1.2 cm in diam, clothed in a tight spiral of bracts, adnate laterally, each bract subtending a condensed branching system with one hermaphrodite flower. Bracts to 1 cm wide and 5 mm high, pale brown with deeper brown fugaceous scurfy indumentum, irregularly split and lobed at the apex. Flowers pale brown in colour, exerted between the tight bracts. Sepals 3, free, imbricate, ovate, shiny, straw-coloured, to 3 mm long. Corolla with a tube c. 3 mm long and 3 free imbricate rounded triangular lobes above, 4 mm long and 3.5 mm wide, during growth of the ovary after fertilization, the corolla tube splitting and being carried out of the bract axils on the tip of the ovary, at the base of the style. Anthers 6, 2 x 1 mm, borne on a short staminal tube, this shortly epipetalous. Pollen pale yellow. Ovary at anthesis, to 2 mm high, with style to 4 mm, chestnut brown, scaly. Style grooved longitudinally and tipped with 3 minute approximate stigmatic lobes. Fruit when not damaged crowned with remains of style, surrounded by corolla and stamens, at least 1.2 cm long, and 1 cm wide. Mature fruit unknown.

Specimens examined

Type not seen, though Plate thereof in Beccari (1918) examined.

SUMATRA

Aceh: Nainggolan s.n. April 1931, Bukit Plawi (BO).

Jambi: Dransfield 2620. 22.7.72. Kampung Penetai, Kabupaten Kerinci, streamside, Hill Dipterocarp Forest, alt 200m (EO, L, BH).

BORNEO

East Kalimantan: Meijer 2411. 5.12.53. Nunukan, near S. Binusan. dry lowland Dipterocarp Forest (BO).

MALAY PENINSULA

Johore: Dransfield 3037. 7.1.73. Gunung Pant East. Lowland, freshwater swamp forest. (SING, BO, L, BH).

Korthalsia hispida differs from the other species having long horn-like ochreas, in the hispid appearance of the sheaths, ochreas and inflorescence bracts, produced by the dense minute spiculae, and in the lax, not approximate, slender inflorescence branches. *K. macrocarpa*, *K. robusta*, and *K. squarrosa* all have squat inflorescences made up of robust, fat, approximate rhachillae, unlike any other *Korthalsia* species (see Beccari 1918).

The presence of this group of long-ochrea *Korthalsia* species in Malaya is not surprising; the absence of collections of it, is, especially as it grows in a very famous, much-visited botanical locality.

Acknowledgements

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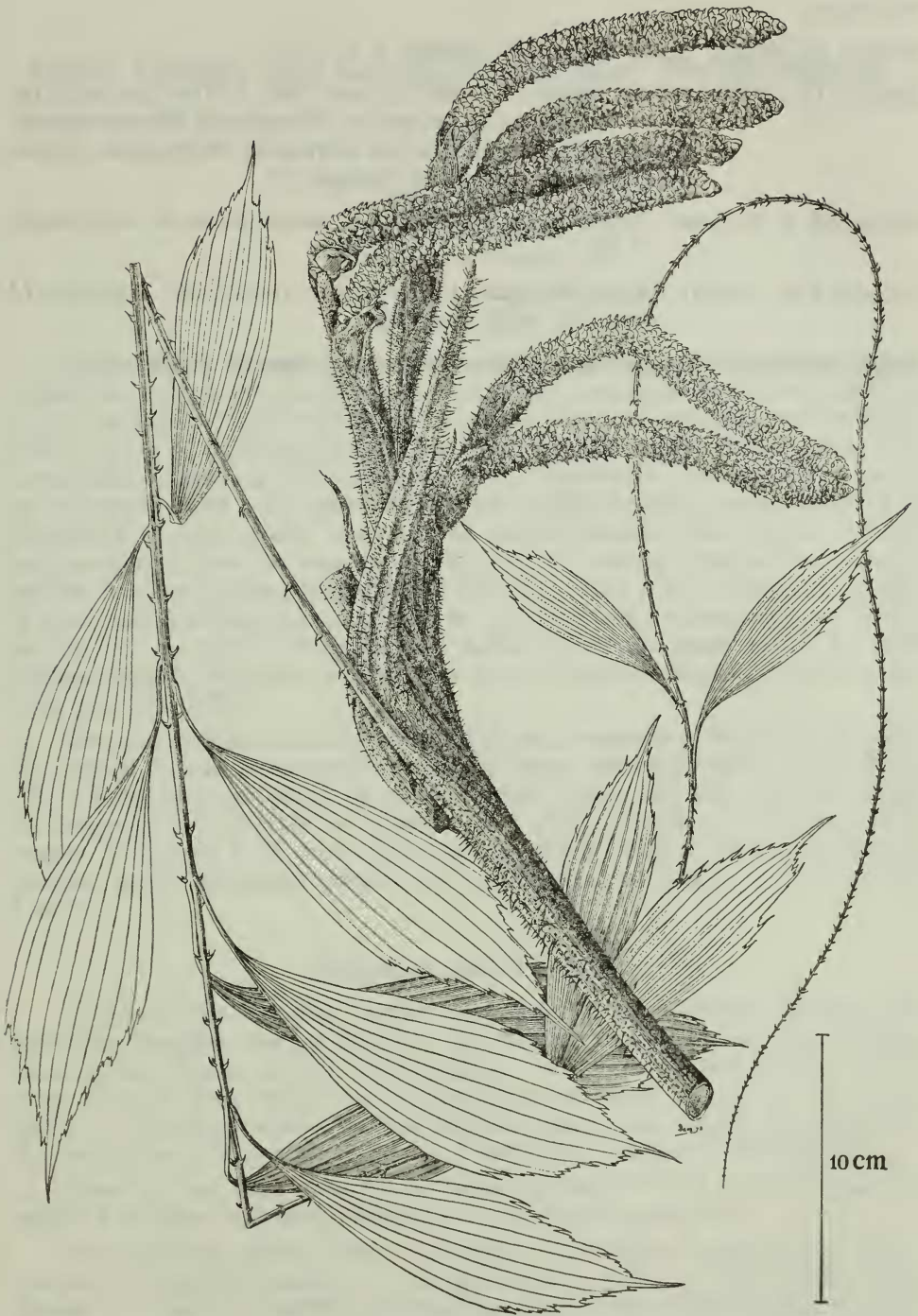


Fig. 2 KORTHALSIA HISPIDA BECC.

Illustration of a node and most of one internode and the subtended partial inflorescence, taken from near the apex of a flowering stem; in all 3, nodes were producing partial inflorescences. *N.B.* the hispidity on all sheaths, ochreas, and bracts. Dransfield 2620, Jambi, Sumatra. Drawing by Damhuri.

References

- Beccari, O. (1886): *Piante Ospitatrici*, Malesia 2, 62–78.
- Beccari, O. (1918): *Asiatic Palms — Lepidocaryaceae*. Part 3. The Species of the genera *Ceratolobus*, *Calospatha*, *Plectocomia*, *Plectocomiopsis*, *Myrialepis*, *Zalacca*, *Pigafetta*, *Korthalsia*, *Metroxylon*, *Eugeissona*. *Ann. R. bot. Gard. Calcutta* 12.
- Dransfield, J. (in press): Notes on the Palm Flora of central Sumatra. *Reinwardtia* 8 (4).
- Furtado, C.X. (1953): *Palmae Malesicae* 11. *Korthalsia*. *Gdns' Bull., Singapore* 13 300–324.
- Meijer, W. (1957): *Rotans van Nunukan*. *Penggemar Alam* 36 51–64.