

- First-order inflorescence bracts, including the prophyll, strictly tubular, or if splitting, persistent, and with a distinctly tubular base. . . . 5
5. Prophyll in normal position, all other bracts expanded, tubular only at the base, abruptly apiculate, held strictly distichously in a plane at right angles to the prophyll **Calospatha**
- Prophyll in normal position, but other bracts either strictly tubular, or if expanded, then not apiculate, and not held strictly distichously 6
6. Bracts subtending the rachillae net-like; sterile staminate flowers absent in the pistillate inflorescence **Retispatha**
- Bracts subtending the rachillae not net-like; sterile staminate flowers present in the pistillate inflorescence **Calamus**

Pogonotium *Dransfield* gen. nov. *Palmae* breviter scandentes, spinosae, dioicae, pleonanthae, ad *Lepidocaryoideas* pertinentes. *Folium* pinnatum, subcirratum, vagina spinosa geniculum et organa duo auriculiformia conspicua magna utrinsecus petiolo ferenti, flagello carenti; foliola uncostata. *Inflorescentiae* staminatae et pistillatae superficialiter similes, axillares, pedunculo ad internodium et vaginam folii secundi adnato, inflorescentia ita inter auriculas duas interjecta; prophyllum inflorescentiam totam includens, sub anthesi apice ad basin secus lineam mediam (plerumque facie abaxiali) findens; rami in ordines 2 dispositi, glabri, prophylloram proximalem subtendenti, et ramis secundis ordinis primae bracteis prophylloram multo minoribus et apicibus a prophylloram discretis; bracteola, involucrophorum, et involucrum parvi, cupulati, apiculati, glabri. *Flos masculus* calyce inferne tubuloso, superne trilobato; corolla breviter tubulosa superne 3 lobis triangularibus; stamina 6, filamentis breviter epipetalis, antheris medifixis; pistillodium minutum. *Flos accolitus* flori masculino similis sed angustior et antheris vacuis. *Flos femineus* calyce inferne tubuloso superne trilobato; corolla calyce c. duplo longior, inferne tubulosa superne 3 lobis triangularibus; staminodia 6 epipetala; gynaeceum squamatum, stigmatibus 3, loculis 3 praeditum, unoquoque loculo ovulo solitario anatropo instructo. *Fructus* squamatus monospermus, semine sarcotesta tecto; endospermium homogeneum, embryo basali.

Species 2; 1 Malay Peninsula and Borneo, 1 Borneo.
Type species. *P. ursinum* (Becc.) Dransfield.

KEY TO THE SPECIES OF POGONOTIUM

1. Leaflets 90–100 on each side of the rachis, limp and delicate, crowded, densely ciliate-bristly; mature fruit reddish brown with scales in 16–17 vertical rows **P. ursinum**
- Leaflets 40–50 on each side of the rachis, stiff and divaricating, distant, very sparsely bristly; mature fruit magenta with scales in 21–22 vertical rows **P. divaricatum**

1. Pogonotium ursinum (Becc.) Dransfield comb. nov.

Daemonorops ursina ('*D. ursinus*') Becc., Rec. Bot. Surv. Ind 2: 222 (1902); Ann. Roy. Bot. Gard. Calcutta 12(1): 96 and t. 35 (1911); Dransfield & Manokaran, Malay. Nat. Journ. 30: 529 (1978); Dransfield, A Manual of the rattans of the Malay Peninsula (1979). Type: Borneo, *Beccari* P.B. 2925 (holotype FI).

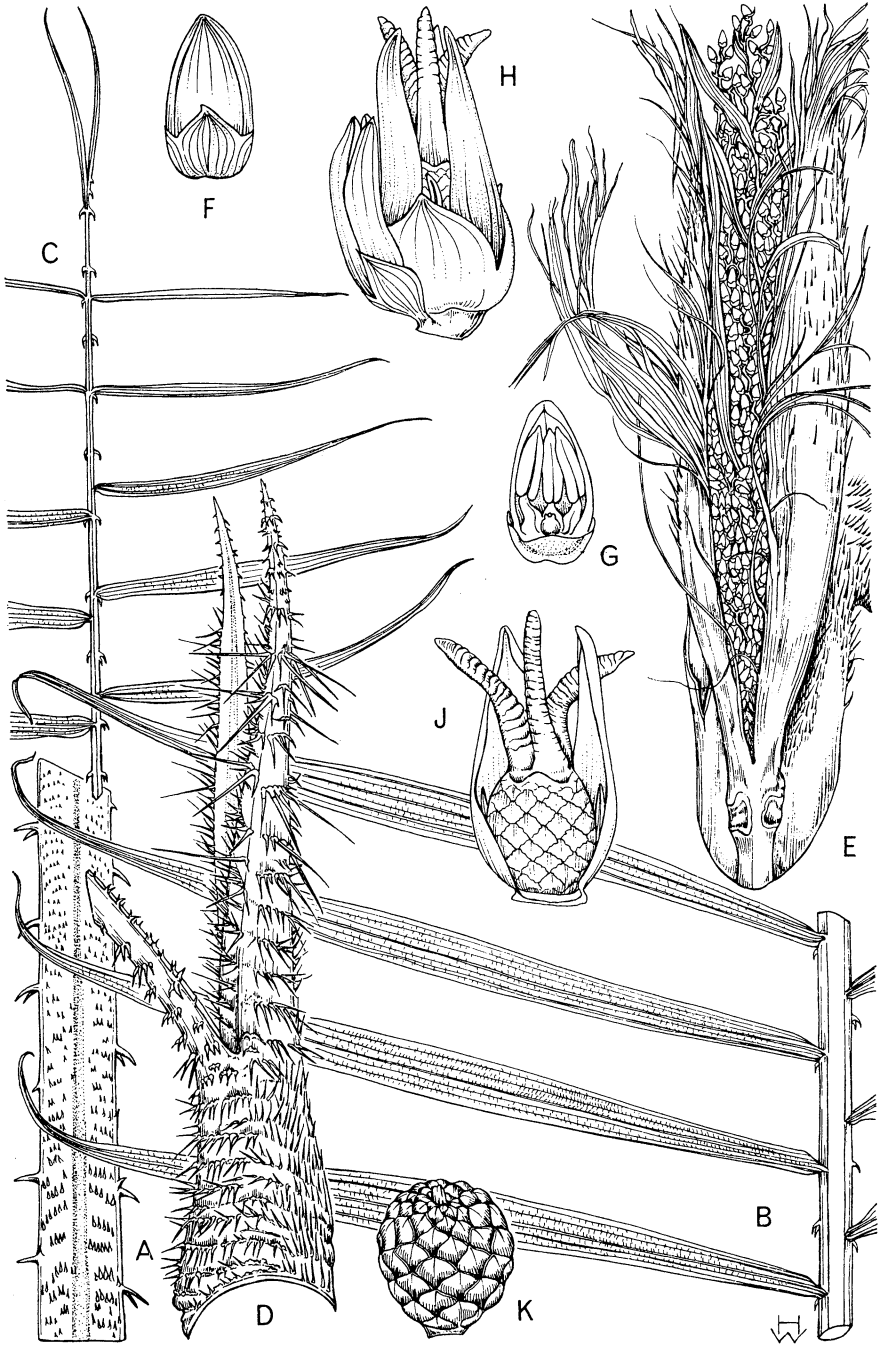


FIG. 1. *Pogonotium divaricatum*. **A** adaxial surface of petiole $\times \frac{2}{3}$; **B** portion of mid leaf with leaflets $\times \frac{1}{3}$; **C** apex of leaf with divaricate leaflets $\times \frac{1}{3}$; **D** leafsheath with two auricles $\times \frac{1}{2}$; **E** portion of leafsheath with staminate inflorescence $\times \frac{1}{2}$; **F** staminate flower $\times 4$; **G** staminate flower with one petal removed $\times 4$; **H** pistillate flower with accompanying sterile staminate flower $\times 4$; **J** pistillate flower with one petal removed $\times 4$; **K** mature fruit $\times \frac{2}{3}$. **A-C**, **E-G** from *Dransfield JD 5327*; **D**, **H-K** from *Dransfield JD 5329*. Drawn by Heather Wood.

Solitary or clustering rattan with stems climbing to 3 m, rarely more. Stem without leaf sheaths 5–7 mm diam., with sheaths 14–15 mm; internodes 5–10 cm. Leaf sheath bearing a rather inconspicuous knee and densely covered in long, sometimes almost papery, black or straw-coloured fine spines to 2 cm long, mostly arranged in horizontal groups with confluent bases, some spines being much smaller and spicule like; reddish brown indumentum and powdery white inflated hairs abundant between the spines; leaf sheath terminating in two lateral auricles $230\text{--}340 \times 7\text{--}9$ mm, densely armed with black or straw-coloured grouped spiculiform spines up to 80 mm long, usually about 25 mm long; auricles slightly convex, thus channelled adaxially, the slight channel sometimes ant-inhabited; petiole $29\text{--}31 \times 0.5$ cm, \pm oval in cross-section armed with pale, reflexed grapnel spines and scattered black spiculae proximally, with adaxial surface very sparsely armed, when young covered in inflated plate-like indumentum borne on small brown tubercles, indumentum caducous, leaving the brown tubercles, the petiole surface thus scabrid; whole leaf excluding the sheath $0.9\text{--}1.2$ m, subcirrate: leaflets about 90–100 on each side of the rachis, up to 1 cm distant, fine and regularly arranged, soft, somewhat limp, hardly divaricate, to 14×0.7 cm the longest near the base, decreasing in length only near to the leaf apex, the leaflet base armed with a bunch of about 5 golden brown bristles to 5 mm long, the margins armed with abundant bristles to 3–5 mm long, frequently interlocking with those of neighbouring leaflets, the 3 veins on the adaxial surface densely armed with bristles to 2.5 mm long, and the mid vein on the abaxial surface covered in abundant bristles to 1.5 mm long throughout the length of the leaflet. Young leaf pinkish tinged, rapidly turning bright green. Staminate and pistillate inflorescences \pm the same size; prophyll lanceolate $10\text{--}16 \times 1\text{--}1.5$ cm, either unarmed or variously armed with short to long bristles, scattered or in groups. The longest to 2.5 cm, also covered with thin brown indumentum and, distally, with inflated cells as the leaf sheaths. Staminate inflorescence with axis to 8 cm long, branching to 2 orders, the ultimate branches about 5 mm long, bearing solitary staminate flowers; bracteole and involucre similar, cupular, forming an alveolus about 1.5 mm diam. Staminate flower with calyx to 1.5 mm long, shallowly three-lobed; corolla to 3.5 mm with petals about 1.5 mm wide; filaments c. 1.5 mm long; anthers c. 1 mm long; pollen canary yellow; pistillode minute. Sterile staminate flower as fertile staminate but somewhat flattened. Pistillate flower to 6×3 mm; calyx to 2.5 mm long with lobes c. 0.75 mm high, 3 mm wide; corolla split to $\frac{3}{4}$ length, with petals to 5×2 mm; staminodes to 1.5 mm long; ovary ovoid, 2.5×2 mm tipped with 3 fleshy arcuate stigmas to 3×0.5 mm. Fruiting perianths slightly increasing in size. Mature fruit dull red brown, about 17×14 mm, somewhat barrel-shaped, conspicuously beaked, the beak 3×2 mm, tipped by the reflexed stigmatic remains; scales only slightly channelled, somewhat concave, arranged in 16–17 vertical rows; seed with sarcotesta c. 14×12 mm; sarcotesta to 3 mm thick; diaspore to $8 \times 6 \times 4$ mm; endosperm homogeneous; embryo basal. Eophyll pinnate with about 6 ciliate hairy leaflets on each side of the rachis.

MALAY PENINSULA. Pahang, Taman Negara, on the way to Gua Peningat, Kuala Negaram, *Loh Hoy Shing* FRI 17187 (KEP).

BORNEO. Sarawak, 1st Division, G. Matang, *Beccari* PB 2925 (holotype

FI), *Dransfield et al.* JD 4736, 4926, 4927 (all K, SAR); Serian District, Sabal Tapang F.R., *Dransfield et al.* JD 4666 (K, SAR).

HABITAT. On G. Matang, found in the summit ridge-top forest at about 800 m in facies with slightly more available moisture than the sharply drained forest dominated by *Eugeissona insignis* Becc.; it grows with an abundance of palms including *Calamus zonatus* Becc., *C. divaricatus* Becc. and *C. pygmaeus* Becc., *Pinanga salicifolia* Bl. and *Iguanura palmuncula* Becc. var. *palmuncula*. At Sabal Tapang it was found at about 100 m altitude in forest transitional between mixed Dipterocarp forest and 'kerangas'. Nothing is known of its habitat in Malaya. This species appears to be genuinely very local.

2. *Pogonotium divaricatum* *Dransfield* sp. nov. a *P. ursino* hic palmijuncus singularis facile distinguibilis habitu majore, folio foliola rigida dissita divaricata 40–50 tantum (vice gracilia infirma congesta 90–100) ferenti, foliolis sparsim setosis (vice dense ciliato-setosis), et fructu majore laete magenteo (vice obscure castaneo), squamis tumidis convexis seriebus verticalibus 21–22 (vice 16–17). Type: Borneo, *Dransfield* JD 5327 (holotypus K; isotypi BH, L, SAR).

Solitary or clustering rattan with stems climbing to 5 m. Stem without leaf sheaths 7–20 mm diam., with sheaths 17–40 mm; internodes to 10 cm. Leaf sheath bearing a rather inconspicuous knee and densely covered in long, sometimes papery, black or straw-coloured fine brittle spines to 2 cm long, usually less, usually arranged in horizontal combs with confluent bases; reddish brown indumentum abundant between the spines and caducous powdery white indumentum present on spines; leaf sheath terminating in two lateral auricles 20–23 × 2–3 cm, rather sparsely armed with black or pale straw-coloured spicules to 70 mm, usually about 20 mm long, sometimes the spines developed as reflexed grapnel groups; auricles markedly convex; petiole 30–75 × 0.7–1.7 cm, oval to semicircular in cross-section armed with pale reflexed grapnel spines on abaxial surface, without spiculae, the adaxial surface sometimes densely armed with short, stiff, upward pointing, bulbous-based scattered spines to 1 mm long, when young covered in inflated plate-like indumentum borne on small tubercles, the indumentum caducous, leaving a brown scabrid surface; whole leaf excluding the sheath 1–2.5 m, subcirrate; leaflets 40–50 cm each side of the rachis, 2.5–3 cm distant near the base, up to 5 cm distant in the distal area, regularly arranged, stiff, divaricate in the distal area, 21–33 × 1.5–1.9 cm except near the leaf tip where very much smaller; bristles absent from the adaxial surface of the leaf base except an occasional solitary bristle to 1.5 mm long; leaflet margins sparsely armed with bristles not exceeding 1 mm long, the 3 veins sparsely armed on adaxial surface with bristles to 2.5 mm long, and mid vein armed on abaxial surface with 3–5 distant bristles to 2 mm long in the most distal quarter of its length. Young leaf pinkish tinged, rapidly turning dark green. Staminate and pistillate inflorescences often ± the same size, but quite variable depending on vigour of the plant; prophyll narrowly to broadly lanceolate, 15–27 × 1.5–5 cm, either unarmed or variously armed with short to long bristles to 2.5 cm, scattered or grouped, also with this brown indumentum and with sparse caducous inflated cells as on the leaf sheaths. Staminate inflorescence with axis to 20 cm long, branching to 2 orders, the