

## *Calamus mogeae* (*Arecaceae*), a bizarre new species from Sumatra

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*Summary.* *Calamus mogeae* (*Arecaceae*) from Sumatra is described as new.

In 1971 while acting as a liaison botanist for the Kyoto University Botanical Expedition to Sumatra, I made two collections of a remarkable robust *Calamus* in north Aceh, distinctive in its spirally arranged staminate flowers and tattering bracts, with an appearance unlike any other Sumatran species. Material was sparse, and was distributed to Bogor, Leiden and Kyoto only. I have long hoped that it might be collected again, but, as far as I am aware, no further collections have been made. I have taken advantage of a loan of material from Leiden to name it at last.

**Calamus mogeae** *J. Dransf.*, sp. nov., quoad habitus, vaginam folii et foliola *C. ornatus* similis sed ocrea conspicua, rachillis staminatis cylindricis floribus spiraliter dispositis, staminibus 6 bene distincta. Typus: Sumatra, Aceh, Aceh Utara, *J. Dransfield & D. Saerudin JD2025* (Holotypus L; isotypi BO, KYO).

Very robust clustering short-stemmed rattan to 4 m only. Stem with sheaths to 8 cm diam., without sheaths to 3 cm diam., internodes 15 – 30 cm long. Leaf subcircular; sheaths dark green, with brown indumentum and sparse scattered and grouped flat triangular spines 20 – 35 × 5 – 10 mm, with yellowish swollen bases and black tips, the margins bearing caducous hairs; knee conspicuously swollen, c. 10 mm high, paler than the rest of the sheath, unarmed; ocrea conspicuous, triangular, to 7.5 cm long, attached to one side of the petiole, splitting longitudinally and tattering; flagellum to 1 m; petiole to 100 cm long, 3 – 4 cm wide and 1.5 cm thick at the base, abaxially rounded, ± flattened adaxially, adaxially unarmed, armed along edges and abaxially with robust triangular yellowish spines to 21 × 6 mm, some scattered, others arranged in a central row and two marginal rows; leaflets to 20 on each side of the rachis, regularly arranged, 7 – 13 cm apart along the rachis, the longest near the base to 60 × 5.5 cm, mid-leaf leaflets to 48 × 5 cm, the apical to 8 × 1 cm, unarmed except at the margins very near the tips, transverse veinlets conspicuous, very close. Staminate inflorescences to 2 m long, branching to 3 orders with c. 8 evenly spaced first order branches; prophyll to 16.5 cm, bearing dense chocolate-brown indument, splitting irregularly, almost to the base and tattering, armed with a few short

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triangular spines; rachis bracts 17–30 cm long, similar to the prophyll, but rather densely armed with short triangular spines 3–7 × 2–5 mm, particularly in the basal unsplit part; first order branches relatively short, 20–35 cm long with up to 26 rachillae; rachillae cylindrical, almost catkin-like, 30–40 × 10–12 mm; rachilla bracts very congested, appearing to be spirally arranged, forming pits, bracts triangular, 8.5 × 7 mm, striate, abaxially densely covered with silvery chaffy hairs, adaxially glabrous; involucre ± tubular, 4 × 5 mm, shallowly irregularly lobed, abaxially very densely covered with silvery hairs. Stamine flower buds 9 × 4.1 mm; calyx tubular in basal 6 mm, with 3 lobes to 2 × 3 mm, densely covered with brown and silvery hairs; corolla 8.5 × 4 mm, tubular in basal 3 mm, distally covered in shining brown scales; stamens 6, filaments 1 × 0.5 mm, anthers 3 × 1 mm; pistillode trifid with 3 slender processes to 2 × 0.2 mm. Pistillate inflorescence branching to two orders; rachis bracts similar to those of stamine inflorescence but longer; rachillae (in available specimen) 8, 4.5–8 × 1 cm with congested, distichously arranged bracts; rachilla bracts triangular, to 12 × 10 mm, abaxially densely covered with silvery hairs; involucrophore c. 1 cm, abaxially densely covered with silvery hairs; involucre c. 8 mm, forming a cup 6 mm diam., densely covered with silvery hairs; scar of sterile stamine flower c. 3 mm diam. Pistillate flower (poorly preserved) 9 × 6 mm; calyx tubular in basal 3 mm, lobes 4 × 4.5 mm, abaxially densely covered with dark scales throughout; corolla tubular in basal 1 mm, with lobes 4 × 4 mm, striate with scattered scales; ovary obpyriform, c. 4 mm wide near the base, with 3 recurved stigmas. Immature fruit 14 × 7.5 mm, beaked, covered with 17 vertical rows of shiny black unchannelled scales with irregular margins. Fig. 1.

SPECIMENS EXAMINED. SUMATRA: Aceh, Aceh Utara, km 63, Bireuen to Takingeun, steep hill slope, river valley, hill dipterocarp forest, alt. 650 m, (stamine), 4 Sept. 1971, Kyoto University Botanical Expedition 1971, J. Dransfield & D. Saerudin JD2025 (holotype L; isotypes BO, KYO); (pistillate) JD2026 (BO, L, KYO).

This is a most unusual species. Vegetatively it is very reminiscent of *Calamus ornatus* Blume in its size, leaf sheath armature and robust subcircular leaves with large lanceolate leaflets, but there the resemblance ends. There is a conspicuous ocrea, different from the very small ocrea of *C. ornatus*. The stamine inflorescence is unlike any other Sumatran species in the stamine flowers being spirally arranged on the rachilla, paralleled only by the very different much more slender *C. sordidus* J. Dransf. of Borneo. Unlike *C. ornatus* that has twelve stamens (apparently unique in the genus), *C. mogea* has six like every other species. It is named for Dr Johanis P. Mogea, palm botanist at Herbarium Bogoriense and collector of many unusual Indonesian palms.

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FIG. 1. *Calamus mogeae* A portion of sheathed stem, showing knee, ocrea and spines  $\times \frac{2}{3}$ ; B subcircular leaf tip  $\times \frac{2}{3}$ ; C portion of staminate inflorescence showing tatterring bract and catkin-like rachillae  $\times \frac{1}{3}$ ; D staminate rachillae  $\times \frac{2}{3}$ ; E staminate flower in section  $\times 4$ ; F part of pistillate inflorescence  $\times \frac{1}{2}$ ; G immature fruit  $\times 2$ . Drawn by Helen Sanderson.