

*Distribution:* Sumatra: Padang and Palembang.

*Specimens examined:* Sumatra, Padang. *Korthals s.n.* (type) L (!), BO (!).

*Notes:* The type specimen was collected by Korthals from Padang and is cited in Rumphia. Palembang was also cited as a locality but I have not been able to locate this specimen. Korthals never visited Palembang; van Steenis (*pers. comm.*) suggests that Praetorius might have collected it. No other specimen of *I. leucocarpa* appears to exist which suggests that it has not been collected since Blume's time. The type specimen does not now have any fruits but the illustration in Rumphia shows them as being olive-shaped. The type description for the genus records that the flowers are hermaphrodite, this error is probably due to observations being based on the male flowers which possess a large pistillode similar externally to the ovary of the female flower.

Several species of *Iguanura* besides *I. leucocarpa* possess trapezoid leaf segments *viz.* the Malayan *I. polymorpha*, *I. corniculata* and *I. bicornis* and the Bornean *I. borneensis*, of these only *I. corniculata* has an unbranched inflorescence but it differs in possessing strongly hooked fruits, a shorter leaf, more pairs of segments and the male flower has a blunt apex.

7. *Iguanura macrostachya* Beccari, *Malesia* 3: 101 (1886).

Stem c. 2 m tall and 1–1½ cm thick, bark papyraceous when dry. Annuli 1–2 cm apart. Leaf marcescent, about 10 leaves in the crown. Leaf sheath thick and fibrous, 15 cm long. Petiole long, 20–25 cm. Lamina 40–60 cm long and 19–23 cm wide, with upto 10 pairs of parallel-sided leaf segments. Inflorescence unbranched, sometimes narrowly two branched, always among the leaves. Outer spathe 7–10 cm long, inner 25–35 cm long. Inflorescence exceptionally long, 90–130 cm of which peduncle is 58–60 cm long. Male flowers large, 5 mm long with pointed apex in bud. Anthers unlobed. Fruits olive-shaped, ridged with one dorsal and two lateral ridges on each side. Endosperm ridged, homogeneous.

*Distribution:* Borneo: Sarawak — Jakarran, Kuching; Kalimantan Kutei Nature Reserve.

*Collections examined:* Sarawak: Beccari PB 3851 (type) FI (!); Kalimantan: Endert 5210 BO (!), SING (!); Dransfield 1568 BO (!); Cultivated at Bogor Botanic Gardens no. 340 BO (!).

*Notes:* This species is distinctive, possessing an exceptionally long inflorescence which is usually unbranched and bears large male flowers. Its local populations have a wide distribution throughout Borneo (Fig. 2).

8 *Iguanura melinauensis* Kiew sp. nov.

*Palma humilis:* caulis 3–4 m altus, cortice laeve. Annuli 2–2½ cm distantes. Vagina folii 9–14 cm longa. Petiolus brevis 7–12 cm longus. Lamina 30–65 cm longa, 12–16 cm lata, in 2–5 paribus segmentorum divisa. Margines segmentorum parallelae, sed angulo apicale distale elongato. Segmenta terminalia lata: nervi 3–4 cm distantes. Inflorescentia inter-vel infra-foliata. Spatha externa ad 20 cm longa, spatha interna 25–30 cm longa. Pedunculus 42–53 cm longus. Rachillae 4–7, rectae, 10–20 cm longae, 1–2 mm latae, 45° divergentes. Flores 3–4 cm distantes. Antherae lobatae. Fructus olivaeformis crista centrale cristis duobus utrinque. Endospermium homogenum cristis ad cristam endocarpii congruentibus.

*Typus:* Chew 487, Melinau, Sarawak, Holotypus (SING).

Stem 3–4 m tall. Bark smooth. Annuli 2–24 cm apart. Crownshaft 22–30 cm long. Leaf sheath 9–14 cm long. Petiole short, 7–12 cm long. Lamina 30–65 cm long and 12–16 cm wide, divided into 2–5 pairs of segments. Segments parallel-

sided but with apical distal corner elongate. Terminal segment pair wide, often  $\frac{1}{2}$  as long as whole laminal region. Veins  $\frac{1}{2}$  cm apart. Inflorescence among or below the leaves. Outer spathe 20 cm long, inner 25–30 cm long. Peduncle 42–53 cm long. Rachillae 4–7, straight, 10–20 cm long and 1–2 mm thick, diverging at  $45^\circ$ . Flowers  $\frac{1}{2}$ – $\frac{1}{4}$  cm apart. Anthers lobed. Fruit olive-shaped with central ridge and two lateral ridges on either side. Endosperm homogeneous and with ridges corresponding to the endocarp.

**Distribution:** Sarawak: Melinau district, 4th Division.

**Collections** examined: Melinau 4th Division Melinau Gorge. Chew 487 SING holotype (!), SARF (!); Anderson and Keng K 81 SARF (!); G. Api, Chai S 30057 K (E)

**Notes:** All collections are from a single locality — Melinau and in the Melinau Gorge it is recorded living on limestone debris as well as on alluvial soil. The complete collections indicate that the Melinau population is probably extensive enough to allow selection of plants in both flower and fruit.

This species is recognised by its narrow leaves with a large pair of terminal segments, by its long peduncle and its fine and diverging rachillae, its ridged fruit and ridged endosperm, The species epithet refers to its locality, Melinau,

#### 9. *Iguanura minor* Kiew sp. nov.

*Palma humilis*, caulis ad 4 m altus,  $\frac{3}{4}$ –1 cm diametro. Annuli  $\frac{1}{2}$  cm distantes. Vagina folii ad 10 cm longa. Folia marcescentia. Petiolus 4–10 cm longus. Lamina indivisa 30–40 cm longa, 12–14 cm lata; vel in 2–3 (7) paribus segmentarum parallelilaterum apicis elongatis divisa. Inflorescentia interfolia, simplex 30–50 cm longa in toto, pedunculo 15–30 cm longo, Spatha interior 14 cm longa. Flos masculus antheris lobatis. Fructus olivaeformis nec porcatus nec striatus.

**Typus:** Foxworthy 242, Gunung Pueh, Sarawak. **Holotypus** (FI).

Stem up to 4 m tall,  $\frac{3}{4}$ –1 cm thick. Annuli  $1\frac{1}{2}$  cm apart, Crownshaft c. 10 cm long. Leaves marcescent. Petiole 4–10 cm long. Lamina simple 30–40 cm long and narrow, 12–14 cm wide or divided into 2–3 (7) pairs of narrow, parallel-sided segments each with an elongated apex. Inflorescence among the leaves, unbranched, total length, 30–50 cm of which 15–30 cm is the peduncle. Inner spathe 14 cm long. Male flower with anthers lobed. Fruit olive-shaped, not ridged nor ribbed,

**Distribution:** Sarawak, G. Pueh. 1st Division.

**Collections** examined: Sarawak, G. Pueh. Foxworthy 242 FI (!) 241 FI (!); *Purseglove* P 4748 K (!); at 4500' *Clemens* 20474 K (!).

**Notes:** This species has been collected from a single locality, Gunung Pueh in Sarawak. It is a slender palm with particularly small and narrow simple leaves (Foxworthy 241) while the dissected leaved plant possesses long and narrow leaf segments; the inflorescence is unbranched — for reason of the small leaves and inflorescence it has been named *I. minor*.

It is closely related to *I. wallichiana* in possessing parallel-sided leaf segments, unlobed anthers and an olive-shaped fruit without ribs or ridges on the endocarp. *I. wallichiana* var *malaccensis* in addition possesses unbranched inflorescences and has been collected from G. Mattang (*Dransfield* 768). *I. minor* is distinguished from *I. wallichiana* by the leaf shape — *I. minor* has a simple leaf which is particularly narrow, and has a deeply toothed margin at the apex (Fig. 4) and both simple and dissected leaves have a narrow apical notch.