

sided but with apical distal corner elongate. Terminal segment pair wide, often $\frac{1}{3}$ – $\frac{1}{2}$ as long as whole laminal region. Veins $\frac{1}{2}$ – $\frac{3}{4}$ 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°. 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 (!).

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 $1\frac{1}{2}$ 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.

This single population at G. Pueh might be analagous to the populations of *I. wallichiana* subsp. *malaccensis* with distinctive leafshapes at Gunung Belumut and Kemaman in Malaya which are regarded as varieties of the large and variable Malayan population. Since information about variation within the Sarawak population of *Iguanura* is not available I have described the Gunung Pueh population as a separate species.

10. ***Iguanura myochodoides* Kiew sp. nov.**

Palma humilis; caulis c. 0.6 m altus, 7.5 mm crassus. Annuli 1–3 cm distantes, vaginae coronae 26 cm longa. Folia abscissa. Vagina folii 9–11 cm longa. Petiolus 11–13 cm longus. Lamina 26–37 cm longa, 13–18 cm lata in 2–3 paribus segmentorum latium paralleli laterum divisa. Inflorescentia interfolia. Pedunculus 13–20 cm longus, rectus, 1–2 mm diametro; rachillae 4–6, curvae ex axe vix divergentes. Flos masculus antheris lobatis. Fructus ellipsoideus 1.5 cm longus, 0.7 cm latus, porca unica centrale, porca duobus lateralibus.

Typus: *Clemens 20541*, Gunung Tieng, Sarawak. Holotypus (SARF).

Stem c. 0.6 m tall, $\frac{3}{4}$ cm thick. Annuli 1–3 cm apart. Crownshaft 26 cm long. Leaves abscissing. Leaf sheath 9–11 cm long. Petiole 11–13 cm long. Lamina 26–37 cm long and 13–18 cm wide, divided into 2–3 pairs of wide parallel-sided segments. Inflorescence among the leaves. Peduncle long, 13–20 cm and straight and 1–2 mm thick with a few, 4–6, short c. 7–9 cm, rachillae which scarcely diverge from the main axis. Male flowers with lobed anthers. Fruit ellipsoidal, longer (1.5 cm) than wide (0.7 cm) with one central rib and with a lateral one on either side.

Typus: *Clemens 20541*, Gunung Tieng, Sarawak. Holotypus (SARF).

Distribution: Sarawak, Kuching 1st Division.

Collections examined: Sarawak: Kuching, G. Tieng, *Clemens 20541* SARF (!) : (isotype) K (!). G. Penrissen, *Jacobs 5024* K (!) SARF (!).

Notes: This species is distinct from others in possessing an erect inflor. with narrowly divergent short rachillae and by its fruits. Most species of *Iguanura* have an olive-shaped fruit or those that are elongate in shape are either bigibbous (*I. bicornis*) or curved (*I. polymorpha*, *I. corniculata*) but *I. myochodoides* takes its name from its peculiar fruit shape which is that of a giant mouse dropping.

11. ***Iguanura palmuncula* Beccari, Malesia 3: 106 (1886).**

A dwarf palm or with stem to 3 m tall. Leaf sheath fibrous, 7 cm long. Leaves marcescent, small and simple, or large and dissected, the larger segments being trapezoid. Inflorescence among or below the leaves, branched. Male flowers with lobed anthers. Fruit dorsiventrally flattened with dorsal ridge extending into a long projecting beak (6 mm long) at the apex. Four prominent lateral ridges form shoulders on opposite sides of the dorsal ridge, two at the apex and two at the base. Endosperm homogeneous.

Distribution: Sarawak, 1st Division.

Notes: This species is distinguished by its peculiar fruit with a long apical beak. Although other species have a dorsal ridge, it is never elongated to such an extent at the apex and furthermore the fruits of other species possess an additional lateral ridge on either side which runs parallel to the dorsal main ridge (Fig. 3).

The two varieties differ only in size and dissection of the leaf; they do not differ in significant characters such as fruit shape, branching and position of the inflorescence.