

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.

Var *palmuncula*

Synonym: *I. palmuncula* var. *angustisecta* Beccari, Malesia 3: 107 (1886)

Stem concealed within the persistent leaf sheaths, 6–10 cm long. Annuli crowded. Leaf c. 40 cm long, petiole 8–9 cm; lamina 30 cm long and 15 cm wide, either divided into 2–4 pairs of segments or simple and oval-rounded in shape with a deep apical notch. Inflorescence branched among the leaves, short, just emerging from the leaf sheaths. Peduncle 8 cm. Rachillae 2–6, 10 cm long, 1 mm thick. Flowers to $\frac{1}{2}$ cm apart.

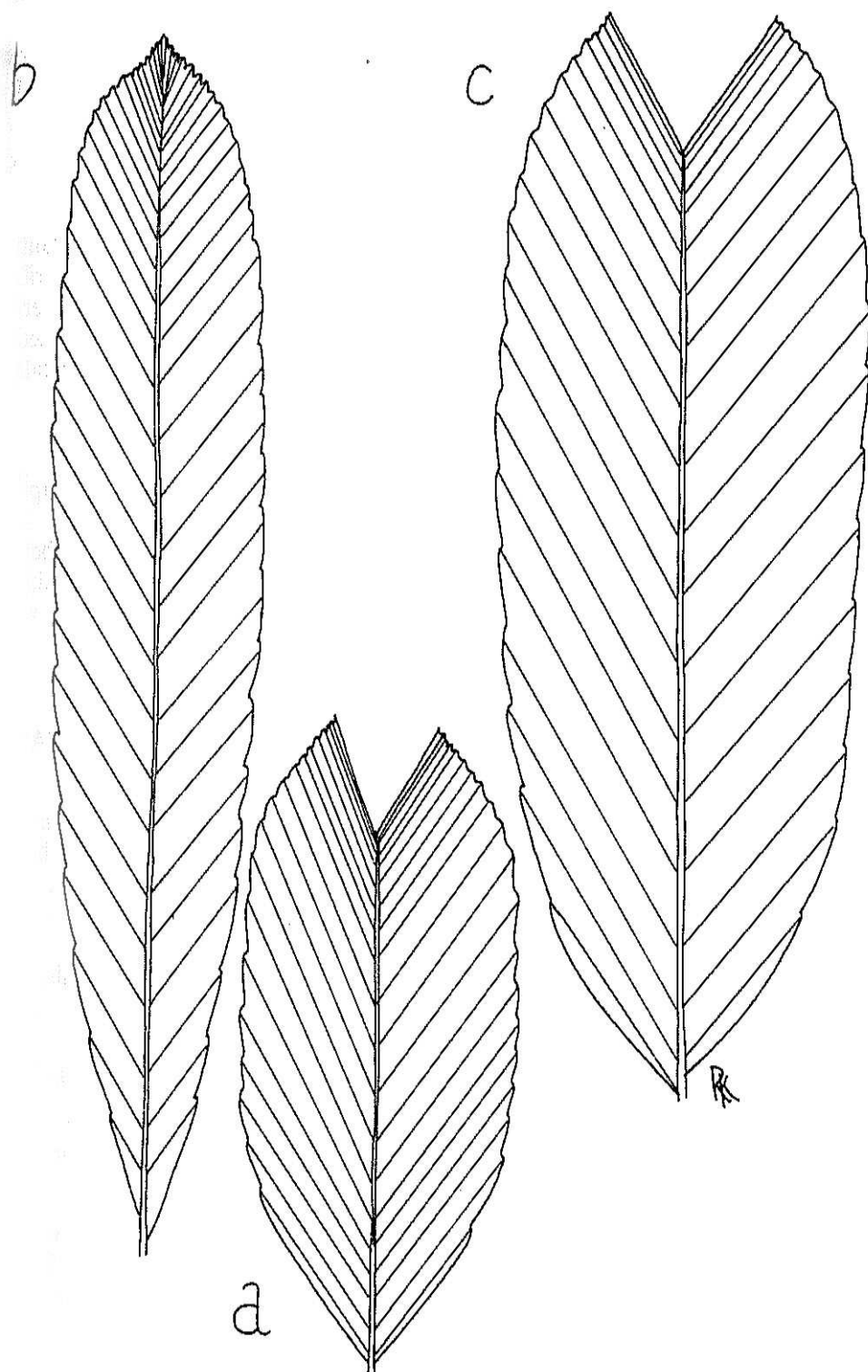


Figure 5. Leaf shapes of *Iguanura palmuncula* var. *palmuncula* (a); *I. sanderiana* (b); and *I. wallichiana* (c) x 1/6.

Distribution: Sarawak, G. Mattang, Kuching.

Collections examined: Sarawak, G. Mattang, *Beccari PB 3957* (type) FI (!);

Notes: Beccari (1904) described how he found this species on Gunung Mattang:— "Here, too, I collected specimens of the largest known *Calamus* and of the diminutive *Iguanura palmuncula*, which is probably the smallest of known palms. Its four or five fronds which constitute the entire plant, and are about the size of a man's hand, are borne at the summit of a stem a few inches high and of the thickness of a goose-quill." He described two varieties: one has simple leaves ("forma typica") and the other has dissected leaves (var *angustisecta*). The type collections of those two varieties have the same collecting number suggesting that they are from the same population and the dissected leaved specimen shows a series of leaves from the scarcely dissected to the completely dissected leaves so that I regard these plants as belonging to a single taxon.

Var **magna** Kiew var. nov.

Caulis ad 3 m altus, 1 cm diametro. Annuli aggregati vel ad 3 cm distantes. Petiolus 15–25 cm longus. Lamina 30–50 cm longa, 13 cm lata in 3–5 paribus segmentis trapezoideis divisa. Inflorescentia inter vel infra folia. Spatha exterior 7 cm longa, interior 19 cm longa. Pedunculus 20–25 cm longus, 3 mm diametro. Rachillae 7–18, 8–13 cm longae, 1 mm crassae. Rachillae inferiores late divaricatae, rachillis ordinis secundis. Flores $\frac{1}{2}$ –1 cm distantes.

Typus: *Anderson S 15319*, Gunung Gaharu, Sarawak. Holotypus (SARF).

Plant tall, stem to 3 m and 1 cm thick. Annuli crowded or up to 3 cm apart. Petiole 15–25 cm long. Lamina 30–50 cm long and 13 cm wide, divided into 3–5 pairs of more or less trapezoid segments. Inflorescence either among or below leaves. Outer spathe 7 cm long, inner 19 cm long. Peduncle 20–25 cm, 3 mm thick. Rachillae 7–10, 8–13 cm long and 1 mm thick. Lower rachillae widely spread with second order branching. Flowers $\frac{1}{2}$ –1 cm apart.

Distribution: Sarawak, Gunung Gaharu and Telok Sabang.

Collections examined: Sarawak: Kuching, Telok Sabang, *Anderson S 12246* SARF (!); G. Gaharu, *Anderson S 15319* SARF (!), K (!).

Notes: Anderson discovered plants with the same peculiar fruits at Gunung Gaharu and Telok Sabang. These plants differ from the typical variety in being taller, possessing larger leaves and a secondarily branched inflorescence, this difference in size is so marked that I have accorded them varietal rank as var. *magna*. Anderson reports (pers. comm.) that the plants he collected came from small and local populations. At Telok Sabang this variety was growing in shallow peat — the only species to be recorded from shallow peat.

12. *Iguanura polymorpha* Beccari, Malesia. 3: 189 (1886); Hooker f., Fl. Brit.

India 6: 417 (1892); Ridley, Mat. Fl. Mal. Pen. (Monoc). 2: 152 (1907); Fl. Mal. Pen. 5: 15 (1925); Martelli, Nuovo G. bot. ital 42: 52 (1935). Whitmore, Palms of Malaya. 64 (1973).

Synonyms: *I. polymorpha* var *canina* Beccari, Malesia. 3: 189 (1886); Ridley, Mat. Fl. Mal. Pen. (Monoc). 2: 152 (1907); Fl. Mal. Pen. 5: 15 (1925); *I. brevipes* Hooker f. Fl. Brit. India 6: 416 (1892); Whitmore, Principes 14: 124 (1970); Palms of Malaya 63 (1973). *I. parvula* Beccari, in Hook. f. Fl. Brit. India 6: 417 (1892), Ridley Mat. Fl. Mal. Pen. (Monoc) 2: 152 (1907). *I. ferruginea* Ridley, J. Straits Branch Roy. Asiat. Soc. 41: 40 (1904); Mat. Fl. Mal. Pen. (Monoc) 2: 152 (1907).