

46. DYPISIS MAROJEJYI

This a most distinctive squat robust palm of the undergrowth, abundant on the broad ridges in submontane forest on Marojejy. It has a short stem and leaves that do not fall off neatly, the crown tending to trap litter. In this respect it resembles *D. perrieri* but the leaves, while being about the same size, have grouped leaflets, and the inflorescence is quite different, being much more diffusely branched. Roots from neighbouring trees tend to grow into the litter that accumulates in the crown, and as the palm grows, these zigzag tree roots continue to grow from sheath to sheath, eventually being exposed. Ferns are also abundant in the crown of this palm. It somewhat resembles *D. coursii* but has a much more robust stem, with much larger leaves and longer, narrower leaflets. The species name is derived from the type locality, Marojejy. As far as we know, this species is not in cultivation.

DISTRIBUTION. Only known from the Marojejy massif.

HABITAT. Submontane rain forest; 700–1100 m. May be locally abundant.

LOCAL NAMES. *Menamasona beratyraty* (Betsimisaraka).

USES. Not recorded.

CONSERVATION STATUS. Vulnerable. Distribution restricted to a single, albeit protected, area.



Dypsis marojejyi

Dypsis marojejyi *Beentje sp. nov.*

Palma solitaria detritifera foliis marcescentibus caule breve lato, foliolis longis aggregatis inflorescentia in 3 ordines ramificanti, endospermio ruminato distincta. Typus: Madagascar, Marojejy, NW of Mandena, *Dransfield et al.* JD6755 (Holotypus K; isotypus TAN).



Dypsis marojejyi. Inflorescences (*Dransfield et al.* JD6755).



Dypsis marojejyi, a squat litter-trapping palm of mountain forest, Marojejy.

Squat solitary palm. **TRUNK** 3–6 m tall, 20–30 cm diam., near the crown c. 20 cm diam.; stilt roots present near the base (always?); internodes c. 2 cm. **LEAVES** 18–20 in the crown, the upper part of the trunk with marcescent leaves and sheath remnants, litter-accumulating; sheath 20 cm long, open, not forming a crownshaft, with dense rusty-brown pubescence, c. 40 cm wide; petiole 0–10 cm, densely reddish-pubescent, 3–3.5 × 2 cm diam.; rachis 3–4 m long, in mid-leaf 1.1–2.3 cm wide, reddish-tomentose; leaflets c. 60 on each side of the rachis, in groups of 3–6 and fanned within the groups, stiff, the group interval 4–9 cm, bright to dark green, the proximal 29–41 × 0.3–0.4 cm, median 45–70 × 2.5–5 cm (interval 0.5–2 cm), distal 15–35 × 0.7–2.7 cm, the apical pair joined for up to 3 cm and multi-fold (always?), main veins 3–5, with ramenta on the main veins, and with reddish scattered scales on the minor veins, apices unequally acute, the distal ones praemorse, young leaf liver-coloured. **INFLORESCENCE**

interfoliar, porrect with spreading branches, branched to 3 orders; peduncle c. 80 cm (estimate from a slide), distally 2.2–3 × 1.2–1.5 cm diam., green with dense reddish scales; prophyll 50–54 cm long, proximally bright crimson, distally brown, with scattered scales; peduncular bract 46–70 cm long, dark green with brown scales; rachis c. 110 cm long, green with dense brown stellate scales, the rachis bracts 8 mm long, with c. 21 branched and 12–17 unbranched first order branches, the proximal of these with a secondary rachis of 30–60 cm, proximally c. 1 × 0.4 cm diam., with up to 16 rachillae; rachillae yellow-green, 9–32 cm long, 1.5–3 mm diam., stellate-puberulous, with distant superficial or slightly sunken triads; rachilla bract 0.5–1 mm, rounded. **STAMINATE FLOWERS** with sepals 1.5–2 × 1.2–2.3 mm, ciliate; petals on a 0.5–0.6 mm high receptacle, 2.2–3.2 × 1.6–2.5 mm; stamens 6, biseriate (offset c. 0.3 mm, the antepetalous stamens inserted higher up and with slightly wider filaments), filaments 1.2–1.6 mm in



Dypsis marojejyi. A basal part of leaf rachis with lowermost leaflets × 1/3; B mid section of leaf × 1/3; C leaf tip × 1/3; D tip of peduncle and basal first order inflorescence branch × 1/3; E fruit × 1.2; F seed in cross section × 2. A, C, D from *Dransfield et al.* JD6755, B, E, F from *Miller & Lowry* 4185. Drawn by Rosemary Wise.

bud, cylindrical and fat (0.6 mm diam.), anthers 1.8–2 × 0.8–1 mm, versatile; pistillode c. 1.3 × 0.6–0.9 mm. **PISTILLATE FLOWERS** with sepals 1.3–2.5 × 1.7–3.5 mm; petals 2.7–4.6 × 2.5–5 mm; staminodes six, 0.2–0.6 mm; gynoecium (in bud) c. 2.5 × 0.8 mm. **FRUIT** pale yellow-green, ellipsoid to slightly obovoid, 22–25 × 14–18 mm, the apex rounded, pustulate; endocarp with densely anastomosing fibres. **SEED** slightly obovoid, 18–20 × 13–16 mm, with pointed base and rounded apex; endosperm ruminant, the intrusions dense, 2–5 mm deep.

NOTE. At first we thought this litter-accumulating palm belonged in a group with the other litter-collectors, such as *D. perrieri*. But the structure of the inflorescence indicates it is closer to taxa such as *D. madagascariensis*, *D. coursii* and *D. rivularis*.

SPECIMENS SEEN. Andapa: Marojejy W, Ambatoharanana valley to upper Antsahaberoka R, Nov./Dec. 1959 (y.fr.), *Humbert & Saboureaux* 31702 (K, P); Marojejy E, NW of Mandena, Feb. 1989 (fr.), *Miller & Lowry* 4185 (K, MO); idem, N of Mandena, Oct. 1988 (bud), *Miller* 3509 (K, MO, P); idem, Nov. 1989 (fl., y.fr.), *Dransfield et al.* JD6755 (Holotype K; isotype TAN).

47. DYPISIS COMMERSONIANA

A little known species from the southern lowland rain forests. The name refers to the collector of the type, Philibert Commerson (1727–1773), who collected in Madagascar in 1770–1771.

DISTRIBUTION. SE Madagascar.

HABITAT. Lowland rain forest; c. 120 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Critical. The distribution area is small, and under severe pressure by an expanding population. Nearly all lowland rain forest in the area has now been cleared.

Dypsis commersoniana (Baill.) Beentje & J. Dransf. **comb. nov.**

SYNONYMS:

Neophloga commersoniana Baill., *Hist. Plantes* 13: 372 (1895); Becc., *Bot. Jahrb. Syst.* 38, *Beibl.* 87: 22 (1906); Becc., *Palme del Madagascar* 20, fig. 13, t. 18 (1912); Jum., *Cat. Pl. Madagascar, Palmae*: 19 (1938); Jum. & H. Perrier, *Fl. Madagascar* 30: 90 (1945). Type: Madagascar, without locality, *Commerson* s.n. (Holotype P).

Neophloga pygmaea Pic.-Serm., *Webbia* 11: 149 (1956), **synon. nov.** See **NOTE**.

Clustering palm. **STEMS** 1.8–5 m tall. **LEAVES** irregularly pinnate; sheaths only known from their distal part, with rounded shoulders and a few scattered scales; petiole 5–21 cm long, 2.5–3 mm diam., flat adaxially, with dense minute reddish scales; rachis 21–38 cm long, in mid-leaf 2–2.5 mm wide, with dense to scattered scales; leaflets in groups of 2 or irregular, 4–7 on each side of the rachis (interval 2–9 cm), distally sigmoid, proximal 5–23 × 0.4–1.6 cm, median 11–28 × 1.3–2.5 cm, cuneate at the base, acuminate, the distal leaflets often praemorse-denticulate on the distal lower margin, glabrous, top pair forming a deeply lobed flabellum 15–33 cm long, connate for 6–11 cm, the lobes 12–23 × 3.4–5 cm, with denticulate-praemorse apices 2–4 cm wide and with the teeth continuing along the distal margin, and 6–7 main veins, leaflets glabrous except for the very base. **INFLORESCENCE** interfoliar, branched to 2 orders; peduncle c. 24 cm long outside the sheath, compressed, 2.5–6 mm wide distally, with rather dense minute reddish scales;

prophyll c. 15 cm long outside the sheath, opening only in the distal 1–3 cm, with scattered scales; peduncular bract inserted at 12 cm above the sheath apex, c. 13 × 0.6 cm, with scattered scales, split over its length, deciduous; rachis 20–33 cm long, with 6–11 branched and 10–13 unbranched first order branches, the proximal with a rachis to 8 cm and up to 7 rachillae; rachis bracts up to 4 × 2.5 mm; rachillae 3–14 cm long, 0.5–1 mm diam., minutely puberulous; triads rather distant, superficial; rachilla bract concave, apiculate. **STAMINATE FLOWERS** with sepals 0.5–0.7 × 0.7–1 mm, keeled and gibbous, orbicular, rounded; petals 1.2–1.8 × 0.9–1.2 mm, elliptic, acute, striate; stamens 6, slightly biseriate (0.2 mm offset, the inner higher), the filaments 0.4–1 mm long, thin, the anthers 0.8–1.3 × 0.3–0.5 mm, dorsifixed, versatile, with parallel acute locules; ovary rudiment with wide base, distally subtrigonus-pyramidal, 0.6–0.8 × 0.2–0.3 mm. **PISTILLATE FLOWERS** with sepals 0.5–0.6 × 0.5–1 mm; petals 2–2.4 × 1.8–2.3 mm; staminodes 6, minute; gynoecium when young to 1 mm high. **FRUIT** only known when young, up to 9 × 3 mm, with rather pointed apex.

NOTE. Baillon (1894b) described only the genus *Neophloga*, without giving a specific name; he cites the specimen *Commerson* s.n., “palmula microcarpa caudice sesquipedala” from Madagascar, and his genus description leaves no doubt that he is describing a true member of the *Dypsidinae*. Baillon states that Martius saw this plant, and thought it identical to *Hyophorbe indica* Gaertn. Baillon also states that it is distinct from *Hyophorbe*, closer to, but different from, *Dypsis* and distinct from *Areca lutescens* of Bory (which was, again, a *Hyophorbe*). We have seen the Commerson type in Paris (which is annotated by both Baillon and Beccari), and we can confirm that the Baillon description was drawn up based on it.

In Baillon (1895) the genus description is repeated



Dypsis commersoniana