

1000–1200 m, from the natural limits of the moist forest] are similar, but with a different ‘feel’ to them. They represent a large solitary palm, 10–12 m, and according to Humbert ‘very ornamental’. The leaves have a large, waxy sheath; the leaflets are grouped, with lines of small scattered scales, and of similar size to *malcomberi*. The branching of the inflorescence is unclear, but the rachillae are 6–20 cm long and c. 5 mm diam. The staminate flower parts are slightly larger than *malcomberi*; so are the pistillate flower parts, with petals 5–5.2 mm long. The fruit of this taxon is not known.

12. DYP SIS PRESTONIANA

A species which was discovered through serendipity: HB was trying to refind *Chrysalidocarpus midongensis* (now a synonym of *D. onilahensis*), unaware that that taxon came from a totally different Midongy (a small hamlet in the Itremo Mountains), failed to find it, but spotted this elegant tree on the skyline of a hill. The specific epithet honours Mr. Paul Preston, President of McDonald’s Restaurants Limited (UK), who sponsored the four-year Palms of Madagascar fellowship.

DISTRIBUTION. Only known from the Midongy area; an old collection from Mahanoro.



Dypsis prestoniana. A massive canopy palm in the forest at Midongy.



Dypsis prestoniana

HABITAT. Moist forest; slight slope; clay soils derived from laterite; alt. 50–550 m.

LOCAL NAMES. *Tavilo* (Betsimisaraka); *Babovavy, Tavilo* (Antaisaka).

USES. Palm-heart edible (fide *Perrier*).

CONSERVATION STATUS. Vulnerable. At present only known from the Midongy area, where numbers do not exceed two hundred. None occurs in a protected area. HB has visited the Mahanoro area, which is nowadays devoid of tree palms.

Dypsis prestoniana *Beentje* sp. nov.

Palma excelsa inter species maximas foliolis aggregatis rachillis dense puberulis endospermio homoganeo distincta. Typus: Madagascar, 6km ENE of Midongy, *Beentje & Andriampaniry* 4672 (Holotypus K; isotypi BH, MO, P, TAN).

Solitary palm. **TRUNK** 4–12 m, 24–40 cm diam.; basal boss about 15 cm high, 40 cm diam.; internodes 10–15 cm, pale grey-brown, distally green and smooth; nodal scars c. 3.5 cm, pale grey. **LEAVES** 8–10 in the crown, spiral, correct to spreading, arched gracefully in the distal part; sheath 90% open, green to pale brown or grey, with waxy covering, with flaking brown tomentum of peltate scales, c. 114 × 28 cm, with distinct rounded shoulders, the sheath in cross-section slightly triangular with thick middle section and thin flat margins; petiole 0–17 cm, c. 7 × 6 cm diam., deeply channelled; rachis c. 4.4 m, channelled in its proximal part (channel 6 cm wide near petiole) but in midleaf c. 3.5 × 3 cm diam., with slightly sunken circular waxy scales; leaflets c. 164 on each side of the rachis, grouped and fanned within the groups, the groups 3–9 in number, dense and irregular, c. 4 cm apart, the individual leaflets 0.3–2 cm apart, the proximal 76–123 × 1–2.5 cm, the most proximal often with long pendulous reins, median 97–112 × 2.7–4.7 cm, distal 17–50 × 1.3–2.6 cm, main veins 3, plus very thickened margins, abaxially glaucous with white wax, as well as with dense patches of large (– 8 mm) red-brown ramenta on the midrib near the base, leaflet apices unequally bifid and acute. **INFLORESCENCE** interfoliar, erect with spreading or recurved branches, branched to 3 orders, c. 226 × 90 cm; peduncle c. 118 cm long, 12 × 4 cm diam. proximally, 8 × 4.5 cm diam. distally, yellow with brown scales, turning green with red-brown scales;



Dypsis prestoniana. A leaf sheath, petiole and basal leaflets $\times 1/2$; B, C mid section of leaf $\times 1/2$; D leaf tip $\times 1/2$; E infructescence in young fruit $\times 1/2$. All from *Beentje & Andriampaniry 4672*. Drawn by Rosemary Wise.

prophyll c. 60 × 20 cm (to 1.2 m, fide Perrier), woody, densely scaly, slightly beaked, only opening near the apex; peduncular bract deciduous (inserted at 55 cm), the distal portion seen with white wax and minute peltate scales, probably beaked; non-sheathing peduncular bract at 91 cm (4.5–5 cm high, base around peduncle), at 105 cm (3.5 cm high, 9 cm wide), at 110 cm (1 × 9 cm); rachis c. 106 cm, densely puberulous, with c. 26 branched and 8 unbranched first order branches; main first order branches with a rachis of up to 42 cm, proximally up to 4 × 1.5 cm diam., with up to 12 branched and 9 unbranched secondary branches; rachillae 9–42 cm, densely puberulous, 2.5–4 mm diam., whitish or pale yellow; triads dense, set in slight pits subtended by entire, rounded bracts. **STAMINATE FLOWERS** in bud with sepals 1.2–1.3 × 1.2–1.3 mm; petals 1.5–1.8 × 1.3–1.4 mm; stamens 6, 1-seriate, with filaments c. 1 mm and narrowly cylindrical, anthers 1–1.2 × 0.4 mm with parallel locules, versatile and dorsifixed; pistillode c. 0.8 × 0.3 mm. **PISTILLATE FLOWERS** with sepals 1.5–2.2 × 1.6–2.4 mm, concave, orbicular, rounded, minutely ciliate; petals 2–2.6 × 2.1–2.8 mm, broadly obovate with a small apiculus; staminodes 6, 0.4–1 mm high, thin and flat; ovary c. 2.5 × 1.8 mm, asymmetrical. **FRUIT** ellipsoid with rounded apex, 12–15 × 6–8 mm, orange; endocarp fibrous. **SEED** narrowly ellipsoid, 11–12 × 5–5.5 mm, acute at base, rounded at apex, with homogeneous endosperm with slight marginal undulations.

NOTE. Quite distinct from other large solitary species with grouped leaflets by its long and interfoliar inflorescence with densely puberulous rachillae, and homogeneous endosperm.



Dypsis prestoniana. View of crown with infructescence (Beentje & Andriampaniry 4672).

SPECIMENS SEEN. Mahanoro: Masomeloka, Jan. 1922 (fl.), Perrier 14202 (P). Midongy: 6 km ENE of Midongy, May 1992 (fr.), Beentje & Andriampaniry 4672 (Holotype K; isotypes BH, MO, P, TAN; type); 8 km ENE of Midongy, May 1992 (fr.), Beentje & Andriampaniry 4673 (K, TAN).

13. DYP SIS TOKORAVINA

An immense and very beautiful palm of primary forest. We have not seen the flowers, but the tree is so distinctive, especially with its enormous leaf sheaths which are open and swollen, that it deserves to be named.

DISTRIBUTION. Maroantsetra and Mananara.

HABITAT. Lowland rain forest; edge of swamp in valley bottom and ridge tops; c. 420 m.

LOCAL NAMES. *Tokoravina* (Betsimisaraka; toko means group, ravina leaf).

USES. Not recorded.

CONSERVATION STATUS. Endangered. Only known from two populations, with few (< 20) individual trees known; the population at Antanambe is in an area under agricultural pressure.



Dypsis tokoravina, growing in the Mananara Biosphere Reserve (Photo: B. Rogers).