and united them in *Macrophloga*; the new genus was necessary because of the ruminate endosperm of the fruit of *Perrier* 12088. The leaves in the genus description were based on *D. decipiens*.

The fruit is now missing from the type; there is, however, a photo which shows the fruit attached to a loose rachilla. The description of the fruit and seed is taken from Beccari (1914), who is accurate in his descriptions.

The protologue adds the following data, not apparent from the type or its label: Solitary, stem 4–6 m, diam. 12 cm; leaves gracefully curved; sheath whitish waxy, adaxially pinkish, 3 cm wide; inflorescence interfoliar, branched to 2 orders; Staminate flowers in bud 4 mm long. Pistillate flowers with sepals 1.5×1.5 mm, petals 3×2.5 mm; ovary cylindrical.

SPECIMENS SEEN. Mananjary: Mt Vatovavy, Oct. 1911 (fr.), *Perrier* 12088 (P, type).

26. Dypsis ambositrae

A graceful palm of the high plateaux, which would probably do quite well in cultivation. We have looked for seeds but not found any, so far. This species will probably become extinct in the near future, unless some rapid action is taken to safeguard the remaining trees, now numbering less than ten. The name comes from the town which lies between the known populations.

DISTRIBUTION. Central Madagascar, near Ambositra. **HABITAT.** ?Forest; among rocks or in riverine forest remnants, medium or steep mid slope; alt. 1300–1500 m. **LOCAL NAMES.** Not recorded.

Uses. Not recorded.

CONSERVATION STATUS. Critical. In 1992 twelve trees of this species were known, all growing in or next to agricultural areas; in 1994, at least five of these had been cut down or burnt.

Dypsis ambositrae Beentje sp. nov.

D. oreophilae et D. tsaratananensi caulibus caespitosis foliolis aggregatis staminibus 6 affinis sed inflorescentia glabra vagina folii magna ceracea, foliis spiraliter dispositis foliolis magnis differt. Typus: Madagascar, Ilaka Afovoany, Beentje & Andriampaniry 4742 (Holotypus K; isotypi BH, MO, P, TAN).

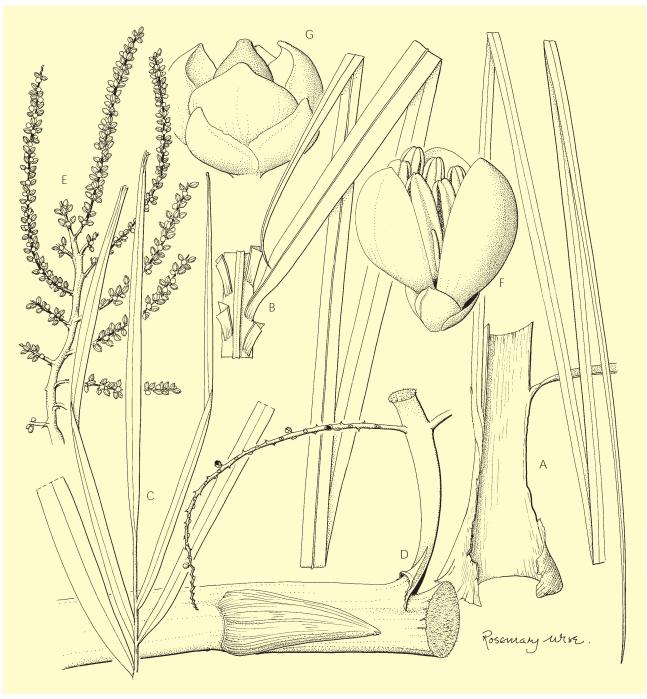
Clustering palm in tufts of 2–3, sometimes (*Beentje & Andriampaniry* 4615) appearing solitary when in regularly burnt terrain. **STEM** 3–7 m tall, c. 12 cm diam.; internodes 10–20 cm, pale brown to grey (green and ringed when young), nodal scars 0.5 cm, grey; wood hard; base of stem slightly wider, with some surface roots; slight bulge in upper trunk in one older tree; crownshaft pale waxy grey-green. **LEAVES** 7–11, spiral, gracefully arching, with stiff leaflets; sheath 64–103 cm, pale green with a white bloom, ligules 2 cm; petiole 9–30 cm long, 3–6 × 2.2–4.5 cm diam., channelled with soft edges; rachis 2.1–2.8 m, in mid-leaf 2.2–3.5 cm wide, green; leaflets 74–84 on each side of the rachis, grouped only very slightly in 2s–5s, in one plane, the leaflets on opposite sides of the rachis at an angle of 90°, stiff with only the apices pendulous, apices attenuate, unequally bifid, the proximal 69–144 × 0.3–1.8 cm, (first





Dypsis ambositrae. View of crown of mature tree, near Ambositra (*Beentje & Andriampaniry* 4615).

interval c. 29 cm, more distal 3.5-9 cm), median $89-114 \times 2.3-3$ cm (leaflet interval 0.2-2 cm, group interval 2-3.5 cm), distal $18-58 \times 0.8-2.5$ cm, abaxially with distant tufts of pale grey ramenta over almost whole length of midrib, with scattered scales very faint to invisible, main veins faint, with only the midrib very prominent on the adaxial surface. Inflorescence interfoliar, branched to 2 (3 in a few cases) orders, with the basal part within the closed sheath, the prophyll hidden and the peduncular bract spreading from the top of the sheath; peduncle 68-123 cm long, distally 9 x 5 cm diam., green, glabrous, curved outside the sheath; prophyll c. 91 cm, borne at c. 32 cm above the base of the peduncle, 11.5 cm wide, narrowly 2-winged; peduncular bract deciduous, about 80 cm, beaked (c. 5 cm) and closed distally, pale waxy grey, inserted c. 48 cm from the base of the peduncle; open peduncular bract 14 x 7 cm; rachis 84-102 cm, with 23-24 branched and 14-17 unbranched first order branches, in a few cases some of the proximal branches branched twice more, but not more than 3 in the entire inflorescence; all axes green with white bloom; first order branches proximally $2-3 \times 0.5-1$ cm; rachillae 14-32 cm, 3-4 mm diam., with flattish base and distant to rather dense triads, hardly sunken in slight pits with entire, obtuse or acute bracts. **STAMINATE FLOWERS** with sepals 2.2–2.5 × 1.6–2.2 mm, keeled, gibbous at the base, broadly ovate, obtuse, the margins membranous; petals connate for 0.2-0.5 mm, the free lobes $2.8-3 \times 2.8-3.2$ mm, ovate or elliptic, acute, sometimes with hooded apex; stamens 6, uniseriate, the filaments connate for 0.2-0.5 mm, 2.8-3.2 mm long, anthers 2.1-2.3 × 1 mm; pistillode 2.2-2.3 mm, columnar, 0.8-1 mm diam. PISTILLATE FLOWERS with sepals $2.4-3 \times 10^{-2}$ 3-4.1 mm, broadly ovate, rounded; petals hardly connate at the base, $3.5-4.1 \times 4-5$ mm, imbricate but for the apiculate apex, broadly ovate, concave; staminodes 6, 0.3-1.6 mm, narrow and flat; ovary asymmetrical, 2.7–4.8 × 2.8–4 mm, with indistinct pyramidal stigmas.



Dypsis ambositrae. A Proximal part of leaf showing top of sheath and lowermost leaflets \times 1/3; **B** mid section of leaf \times 1/3; **C** leaf tip \times 1/3; **D** part of inflorescence showing tip of peduncle and basal first order branch \times 1/3; **E** inflorescence tip \times 1/3; **F** staminate flower \times 10; **G** pistillate flower \times 6. All from *Beentje & Andriampaniry* 4742. Drawn by Rosemary Wise.

Fruit only known from carbonized remnants, c. 14×10.5 mm, possibly with fibrous endocarp, possibly with ruminate endosperm.

Note. With its grouped leaflets and glabrous inflorescences branched to 2 orders, this species is allied to *D. oreophila* and *D. tsaratananensis*, from which it is easily distinguishable by its larger leaf sheaths, longer leaves with larger leaflets, the much longer inflorescences, and the larger fruit.

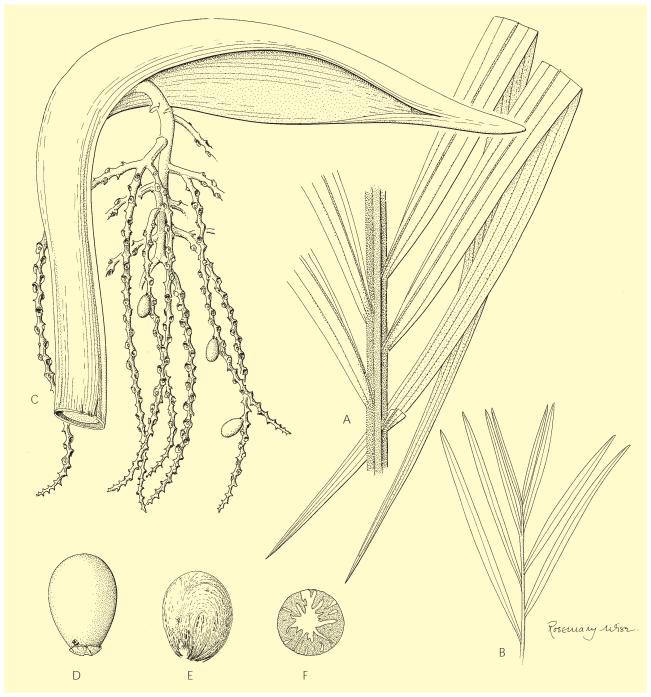
SPECIMENS SEEN. Ambositra: 8km NNW of Ilaka Afovoany, July 1992 (fl.), *Beentje & Andriampaniry* 4742 (BH, K, MO, P, TAN; type); 45km S of Ambositra, March 1992 (old fr.), *Beentje & Andriampaniry* 4615 (K).

27. Dypsis heteromorpha

This palm has not been collected since 1959, and the material available to us was fairly fragmentary. A high altitude species, with the name indicating the variation in the leaf division: from regularly pinnate with many leaflets, to entire-leaved on young shoots.

DISTRIBUTION. N Madagascar: Tsaratanana, Marojejy and Anjanaharibe.

HABITAT. Moist montane forest; 1300–2200 m. **LOCAL NAMES.** Not recorded.



Dypsis heteromorpha. A mid section of leaf \times 1/2; **B** leaf tip \times 1/4; **C** infructescence \times 1/2; **D** fruit \times 1; **E** fibrous endocarp \times 1; **F** seed in cross section \times 1. **A**, **B** from *Humbert & Saboureau* 31725, **C** – **F** from *Humbert et al.* 24766. Drawn by Rosemary Wise.