



**Dypsis
zahamenae**

Dypsis zahamenae J. Dransf. **nom. nov.**

SYNONYM:

Dypsis humbertii H. Perrier in Humbert, Not. Syst. 8: 46 (1939); Jum. & H. Perrier, Fl. Madagascar 30: 28 (1945). Type: Madagascar, Massif d'Andrangavolo, *Humbert 17776* (Holotype P). [non *Dypsis humbertii* (Jum.) Beentje & J. Dransf. (*Neophloga humbertii* Jum. 1936)]

Slender undergrowth palm, whether solitary or clustered not known.

STEMS 0.5–1.2 m tall, 7–8 mm diam., internodes 12–18 mm with scattered chestnut-brown scales. **LEAVES** 6–8 in crown; sheaths 7–9 cm long, 7–13 mm diam., striate, covered in caducous chocolate-brown scales, apically with 2 narrow triangular auricles 7–9 × 3–4 mm, these soon disintegrating; petiole absent or to 7 cm long, 2 mm wide, triangular in cross section, densely covered in soft brown scales; blade entire bifid, 20–35 × 12 cm, with apical cleft not exceeding one third of blade length, or irregularly divided into broad leaflets, up to 3–4 on each side of the rachis; rachis 11–18 cm; leaflets 10–26 × 1.5–4 cm, apical pair (or tips of entire bifid blades) shallowly lobed, c. 1 cm wide; lamina abaxially with abundant caducous brown scales along rachis and main ribs and with abundant punctiform scales, adaxially very sparsely punctiform scaly. **INFLORESCENCE** interfoliar, erect, branching to 1 order; peduncle 11–23 cm long, c. 1.5–2 mm diam.; prophyll c. 10 × 0.5 cm, sparsely brown scaly; peduncular bract similar, exceeding prophyll by up to 6 cm; rachis 3–4 cm, densely brown hairy; rachillae 6–10, short, stout, condensed, usually diverging from rachis at right angles, 10–25 × 3 mm; rachilla bracts very close, conspicuous, rounded, 1.5 × 3 mm, densely covered in lacinate pale grey to brown hairs. **STAMINATE FLOWER** buds pointed, 1.5 × 1 mm; sepals imbricate, rounded, 1 × 1 mm, slightly keeled, margin erose; petals shining, not striate, 1.3 × 0.6 mm; stamens 3 antesealous, staminodes absent, filaments connate into a tube c. 0.7 mm high, anthers didymous, c. 0.15 × 0.35 mm; pistillode minute. **PISTILLATE FLOWERS** known only in very immature bud. **FRUIT** unknown.

NOTE. This is a very curious species with its highly condensed stubby rachillae. Such rachillae are known elsewhere only in *D. angustifolia* (previously described as variety *angustifolia* of *D. humbertii* Perrier) and in *D. pachyramea*. *D. zahamenae* and *D. angustifolia* have antesealous stamens and no sta-

minodes whereas *D. pachyramea* has antepetalous stamens and antesealous staminodes.

SPECIMENS SEEN. Ambatondrazaka: Zahamena, Massif de l'Andrangavalo, Oct. 1937 (fl.), *Humbert & Cours 17776* (Holotype of *D. humbertii* var. *humbertii*, P); Chutes du Maningory, Dec. 1944 (fl.), *Homolle* s.n. (K, P); between waterfalls and Ambodivoangy, Dec. 1944 (fl.), *Cours 1848* (K, P); Ambatondrazaka, June 1961 (fl.), *Rakotovao 11899* (K, P).

102. DYPISIS ANGUSTIFOLIA

A diminutive palm of the forest undergrowth known from Betampona and environs northeast of Toamasina. This is one of three species of *Dypsis* that have highly condensed inflorescences with very short fat flower-bearing branches that appear almost catkin-like. The species name is Latin for having narrow leaves.

DISTRIBUTION. Central part of East Coast lowlands, Betampona and environs.

HABITAT. Lowland rain forest; 400–500 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Endangered; occurring in two sites in low numbers.

Dypsis angustifolia (H. Perrier) Beentje & J. Dransf. **stat. nov.**

SYNONYM:

Dypsis humbertii H. Perrier var. **angustifolia** H. Perrier in Humbert, Not. Syst. 8: 47 (1939); Jum. & H. Perrier, Fl. Madagascar



**Dypsis
angustifolia**

30: 30: 28 (1945). Type: Madagascar, Toamasina, Ambodiriana, Betampona, *Perrier* 17468 (Holotype P).

Slender, clustering undergrowth palm. **STEMS** to 1 m tall, 6–10 mm diam., internodes 12–25 mm diam., bearing scattered brown scales. **LEAVES** 6–7 in crown; sheaths 9–12 × 0.8 cm, tardily abscising, ± marcescent, striate, with scattered punctiform scales, auricles small, membranous, soon tattering; petiole 4–23 cm, c. 2 mm wide, ± triangular in cross section; blade entire bifid, distinctly plicate on drying, 28–50 cm, deeply cleft to about three quarters of the overall length, the two lobes 20–40 × 1.5–3 cm, occasionally one lobe further divided into 2 narrow leaflets, segment tips shallowly lobed, adaxially with scattered punctiform scales, abaxially paler and with abundant brown punctiform scales. **INFLORESCENCES** interfoliar, erect or curved, branched to 1 order only; peduncle 15–32 cm long, c. 1–2 mm diam., sparsely covered with red scales in exposed portion; prophyll 10–25 × 0.5 cm, membranous, sparsely scaly; peduncular bract inserted far above and exceeding the prophyll

by 5.5–9 cm, otherwise similar; rachis 3.5–10 cm, densely brown hairy; rachillae 5–9, inserted at right angles, 1–3 cm long, c. 2 mm diam.; rachilla bracts inconspicuous, c. 0.5 × 1 mm, almost entirely obscured by dense red-brown hairs. **STAMINATE FLOWER** buds c. 1 mm diam., spherical; sepals 3, free, imbricate, rounded, c. 0.6 mm diam., striate, irregularly cleft at margin; petals ± free, longitudinally striate, broad triangular, valvate, 0.8 mm long, 0.8 mm wide at the very base; stamens 3 antesealous, filaments united in a ring 0.2 mm high, free part 0.2 mm long, anthers didymous, c. 0.2 × 0.1 mm, introrse; pistillode conical, minute. **PISTILLATE FLOWERS** globular; sepals broad, imbricate, 1 × 1 mm, margins erose; petals striate, valvate at tips, irregularly imbricate at base, c. 1.5 × 1.5 mm; staminodes 3, minute; ovary c. 1 mm diam. **FRUIT** unknown.

NOTE. This species is closely related to *D. zahame-nae* from which it can be distinguished by the blade being narrow and divided to three quarters rather



Dypsis angustifolia. A crown showing inflorescence × 1/2; B detail of rachilla × 4. All from *Beentje* 4494. Drawn by Rosemary Wise.

than one third of its length, by the inflorescence rachis being usually more elongate with more distant rachillae, by the rachilla bracts being inconspicuous and almost entirely obscured by hairs, rather than being large and conspicuous, and by the staminate flower buds being rounded rather than pointed with striate rather than smooth shining petals. In all but one collection (one of the two specimens collected under *Beentje* 4494) there is a well developed long petiole, whereas in *D. zahamena* the petiole is usually very short or absent. Previously considered to be a variety of *D. humbertii* (= *D. zahamena*) we consider it to be sufficiently distinct to be elevated to specific rank.

SPECIMENS SEEN. Toamasina: Ambodiriana, Betampona, Dec. 1925 (fl.), *Perrier* 17468 (Holotype P); idem, 25 Oct. 1991 (fl.), *Beentje* 4494 (BH, K, MO, P, TAN); Route from Didy to Ampasimanolotra, received April 1954 (fl.), *Cours* 4926 (P).

103. DYPISIS PINNATIFRONS

This is a handsome palm that has become quite widespread in cultivation outside Madagascar. The great altitudinal and latitudinal range of the species suggests that there may be considerable variability of value for the selection of different strains to suit particular gardening climates.

D. pinnatifrons is superficially very similar in habit, inflorescences and, especially, leaf form to *D. nodifera*. If staminate flowers and/or fruit are available, then there is no difficulty in separating them, for the former has three stamens and a seed with homogenous endosperm while the latter has six stamens and a seed with ruminant endosperm. There do appear to be good differences between the seedlings at about the six-leaf stage, *D. pinnatifrons* with numerous leaflets that are already clearly grouped and divergent within the groups, each leaflet abruptly narrowed at its tip and *D. nodifera* with entire leaves or with parallel-sided leaflets that are not obviously grouped and divergent. This apparent difference needs confirmation.

The species epithet, *pinnatifrons*, meaning pinnate-leaved, would be appropriate for many a palm in Madagascar but was probably appropriate when it was first published to distinguish the species from the other two species of *Dypsis* known at that time (*D. forficifolia* and *D. hirtula*).

DISTRIBUTION. Widespread throughout all humid forested areas; one of the commonest palms in Madagascar.

HABITAT. Lowland and montane forest, somewhat tolerant of disturbance; to 1000 m.

LOCAL NAMES. *Tsingovatra*, *Tsingovatrovatra*, *Ovatsiketry*, *Ambolo*, *Hova*, *Tsobolo*.

USES. Stems used for making blowpipes.

CONSERVATION STATUS. Not threatened. Widespread.



Dypsis pinnatifrons. Very robust form on Marojejy. This is the form previously known as *D. sambiranensis* (*Dransfield et al.* JD6765).

Dypsis pinnatifrons Mart.

Hist. Nat. Palm. 3 (ed. 1): 180 (1838); Baill., Bull. Soc. Linn. Paris 147: 1162 (1894). Type: Madagascar, *Commerson* s.n. (P).

SYNONYMS:

Areca gracilis Thouars in Mart., l.c. (non Roxb.). See NOTE.

Dypsis gracilis Bory ex Mart., Hist. Nat. Palm. 3 (ed. 2): 181 (1845); Becc., Palme del Madagascar 17 (1912); Jum. & H. Perrier, Ann. Inst. Bot.-Géol. Colon. Marseille sér. 3, 1 (1): 23 (1913); Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 3, 6 (1): 36 (1918); Bull. Acad. Malgache 6: 16 (1923); Cat. Pl. Madagascar, Palmae: 12 (1938); Jum. & H. Perrier, Fl. Madagascar 30: 29 (1945). Type: Madagascar, *Perrotet* s.n. (P).

Adelodypsis gracilis (Bory ex Mart.) Becc., Bot. Jahrb. Syst., Beibl. 38: 17 (1906).

Dypsis gracilis var. *sambiranensis* Jum. & H. Perrier, Ann. Inst. Bot.-Géol. Colon. Marseille sér. 3, 1 (1): 24 (1913). Type: Madagascar, Lokobe, *Perrier* 18742 (P).

Dypsis sambiranensis (Jum. & H. Perrier) Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 5, 3: 15 (1933); Cat. Pl. Madagascar, Palmae: 14 (1938). **synon. nov.**

Chrysalidocarpus sambiranensis (Jum. & H. Perrier) Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 5, 1: 21 (1933).

Adelodypsis sambiranensis (Jum. & H. Perrier) H.P. Guérin, Ann. Sc. Nat., sér. II, Bot. 10: 28, 37 (1950).

Phloga polystachya Becc. (non Baker), J. Linn. Soc. (Bot.) 29: 62 (1890).