



**Dypsis
canaliculata**

LOCAL NAMES. *Lopaka* (Antankarana); *Monimony* (Betsimisaraka).

USES. Palm-heart bitter, said to be poisonous by some.

CONSERVATION STATUS. Possibly extinct; not seen since 1951.

Dypsis canaliculata (Jum.) Beentje & J. Dransf. **comb. nov.**

SYNONYM:

Neodypsis canaliculatus Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 4, 2 (2): 9 (1924); Jum., Cat. Pl. Madagascar, Palmae: 17 (1938); Jum. & H. Perrier, Fl. Madagascar 30: 141 (1945). Type: Madagascar, Bas-Sambirano, W base of Mt Kalabenono, Perrier 15413 (Holotype P).

Solitary palm. **TRUNK** 10–15 m high, 30–40 cm diam.; nodal scars very visible. **LEAVES** with sheath c. 1 m long, glabrous, whitish-green and waxy; petiole absent; rachis 3–4 m long (fide Perrier) or c. 6 m (fide Cours), in mid-leaf 2.5–3.5 cm wide, waxy, channelled adaxially at least proximally, rounded abaxially; leaflets bright green, grouped and fanned within the groups, the group interval 2–3 cm, very many, not stiff, interval 0.2–1.3 cm, proximal not seen, median 75–116 × 2.6–3.1 cm, distal to 13–30 × 0.3–0.8 cm, glaucous, with many ramenta proximally, the ramenta bifid, to 2 mm long, 2–3 mm high, and with minute reddish scales over the entire abaxial surface, main vein 1, apex unequally attenuate. **INFLORESCENCE** infrafoliar, branched to 2 orders, short and pendulous; parts seen include first (?) order branches with a glabrous rachis of up to 20 cm, proximally up to 1.7 × 0.8 cm diam., with up to 8 rachillae; rachillae 35–48 cm long, 5–6 mm diam., glabrous, waxy, with distant triads in pits, the rachilla bracts proud, rounded or obtuse. **STAMINATE FLOWERS** unknown. **PISTILLATE FLOWERS** unknown. **FRUIT** ellipsoid or rounded, 25–30 × 17–21 mm when dry. **SEED** subglobose, 15–21 × 12–16 mm; endosperm deeply and densely ruminant.

NOTE. The protologue states the type is *Perrier* 1541, but this is changed in the Flora to 15413 (which is correct). The type at P is currently without fruit or flowers.

In the protologue there are the following data not on the type label: trunk green, 10–15 m high, 30–40

cm diam. Leaves 3–4 m long; sheath green, glabrous; petiole absent, rachis 2.5 cm wide; leaflets irregularly grouped (group interval c. 2 cm), distal 30 × 0.7–0.8 cm. Inflorescence branched to 2 orders; rachillae c. 50 cm.

This taxon resembles *D. bejofa*, but is distinct in the almost continuous ramenta on the midrib and the scattered scales, and by the absence of a petiole.

The *Cours* specimen is rather poor, and is included with some doubt. The fruit in this specimen has densely and irregularly ruminant endosperm, distinct from that of *D. bejofa*.

SPECIMENS SEEN. Ambilobe: W base of Mt Kalabenono, no date (infl. only), *Perrier* 15413 (P, type). Ampasimanolotra: near Anivoranokely and Andrambolahikely, April 1951 (fr.), *Cours* 4494 (K, P, TAN).

3. DYP SIS HOVOMANTSINA

An impressive tree; we found a second site only three months before the book went to press. The leaf-sheaths are distinct from any other, with their lower parts white-waxy and a golden-brown furry part at the very top. The name comes directly from the local name, which means stinking and refers to the smelly palm-heart.

DISTRIBUTION. Only known from Maroantsetra and Mananara.



Dypsis hovomantsina. View of crown, showing golden-brown hairs at petiole base, Mananara Avaratra (*Beentje & Dransfield* 4819).

HABITAT. Rain forest, steep slopes either near valley bottom or near ridge crest; 50–300 m.

LOCAL NAMES. *Hovomantsina* (Betsimisaraka; 'mantsina' means stinking)

USES. Palm-heart smelly but still eaten; no other uses.

CONSERVATION STATUS. Critical. Only known from two sites, both of which are under pressure from agriculture; populations consist of few individuals.

***Dypsis hovomantsina* Beentje sp. nov.**

inter species maximas foliolis aggregatis vagina folii versus basim glabra ceracea apice brunneo-tomentosa staminibus 6 endospermio

homogeneo distincta. Typus: Madagascar, Antalavia, *Dransfield et al.* JD6744 (Holotypus K; isotypi P, TAN).

Solitary palm. **TRUNK** 6–15 m tall, 20–30 cm, diam., near the crown 15–20 cm diam.; internodes 10–35 cm, pale to reddish-brown basally, grey-green distally, nodal scars 1–1.5 cm, pale brown; crown-shaft well-developed, 1–1.2 m, c. 25 cm diam., grey-green and covered in white wax except distally, where red-brown furry. **LEAVES** spirally inserted, occasionally tristichous, 6–7 in the crown, curved, with an untidy look, the leaflets held in all directions; sheath pale green to whitish, proximally waxy and glabrous, with distal dense soft pale reddish brown persistent tomentum, adaxially peach-coloured; petiole 10–56 cm, 7 × 5.5 cm diam., channelled with sharp edges, with dense red-brown indument; rachis 3–3.5 m long, in mid-leaf 3.5 cm wide, with keel; leaflets 80–96 on each side of the



***Dypsis hovomantsina*.** **A** leaf sheath $\times 1/10$; **B** distal part of petiole with lowermost leaflets $\times 1/6$; **C** mid section of leaf $\times 1/6$; **D** leaf tip $\times 1/6$; **E** basal portion of inflorescence rachis $\times 1/4$; **F** detail of rachilla $\times 3$. All from *Dransfield et al.* JD6744. Drawn by Margaret Tebbs.



**Dypsis
hovomantsina**

rachis, grouped and fanned in 3s–6s, the group interval 3–7 cm, bent downwards at two-thirds of their length, the proximal 120–242 × 0.7–2.4 cm, median 123–135 × 3.3–4 cm, distal 22–50 × 0.6–2 cm, connate for 1.5–4 cm, with a few large lacinate ramenta, without scattered scales. **INFLORESCENCE** infrafoliar, c. 0.5–1 × 0.5–1 m, branched to 2–3 orders; peduncle 18–26 cm, diam. 7 × 3 cm; prophyll 21–30 cm, borne at 3–4 cm above the base of the peduncle; peduncular bract deciduous, inserted at 9–11 cm from the base of the peduncle, 45–66 × 10–12 cm, not beaked or briefly beaked with triangular beak, split for 90%; non-tubular peduncular bract occasionally present on upper peduncle, to 20 cm; rachis 48 cm, with 14 branched and 10 unbranched first order branches; rachillae stiff or sub-pendulous, green to yellow-green, 16–40 cm long, 4–8 mm diam., glabrous, with dense flowers. **STAMINATE FLOWERS** only known in rather young bud, with sepals 2.1–3 × 2.5–2.8 mm, very hooded; petals < 1.5 mm; stamens 6, < 1.3 mm, probably versatile. **PISTILLATE FLOWERS** only known from the young fruit stage, with sepals 2.7–3.1 × 3–3.3 mm; petals 3.5–3.8 × 3–4 mm; staminodes 6, flat, tooth-shaped, 0.5 mm. **FRUIT** not known, except for the fibrous endocarp. **SEED** obovoid with pointed base, 9–10 × 7–8 mm, with homogeneous endosperm. **EOPHYLL** entire, deeply bifid.

NOTE. Possibly closest to *D. tokoravina*, but with a totally different leaf sheath.

SPECIMENS SEEN. Maroantsetra: Antalavia, Feb. 1988 (y.fr.), *Dransfield et al.* JD6473 (K, P, TAN); idem, Nov. 1989 (bud), *Dransfield et al.* JD6744 (Holotype K; isotypes P, TAN). Mananara Avaratra: Antanambe, Oct. 1994 (fl., fr.), *Beentje & Dransfield* 4819 (K, TAN); idem, Oct. 1994 (bud), *Beentje & Dransfield* 4827 (K, TAN).

4. DYPISIS CERACEA

This species has not been collected for almost fifty years, and the material is rather poor. This is another mystery, resembling *D. bejfo* and *D. canaliculata*.

DISTRIBUTION. Only known from the Marojejy area and Betampona.

HABITAT. Moist lowland forest; 450 m (fide Cours).

LOCAL NAMES. *Lafaza* (Betsimisaraka).

USES. Leaves used in thatching.

CONSERVATION STATUS. ?Extinct; not seen since 1949.

Dypsis ceracea (Jum.) Beentje & J. Dransf. **comb. nov.**

SYNONYM:

Neodypsis ceraceus Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 5, 1 (1): 18 (1933); Jum., Cat. Pl. Madagascar, Palmae: 17 (1938); Jum. & H. Perrier, Fl. Madagascar 30: 144 (1945). Type: Madagascar, Betampona near Ambodiriana, *Perrier* 17474 (Holotype P).

Solitary palm. **TRUNK** 8–15 m high, cylindrical, 8–15 cm diam. **LEAVES:** sheath medium brown with a dense layer of wax, the young sheath bright pink, without ligules or auricles, distally with medium-sized lacinate scales; petiole c. 35 cm long, waxy, with scattered scales; rachis in mid-leaf 1.4–1.8 cm wide, keeled, with scattered scales, slightly waxy; leaflets in groups of 4–6, the group interval > 6 cm, the leaflet interval 0.5–1 cm, “hanging towards the middle” (*Perrier*); proximal 82–86 × 2.5–3.2 cm, median 55–92 × 2.3–2.9 cm, distal 13–39 × 0.3–2 cm, adaxially dark green, abaxially glaucous, with sparse large ramenta (6–10 mm long) on the proximal midrib, with minute reddish scales scattered over the minor veins, main vein 1, with slightly thickened margins, apex unequally attenuate. **INFLORESCENCE** interfoliar, branched to 3 orders (or more); prophyll coriaceous; peduncular bract coriaceous, deciduous, with a rather long beak; first order branch seen with secondary rachis of 6–20 cm, proximally 1–3 × 0.5–1.3 cm, glabrous, with 7–12 second order branches; rachis bracts up to 12 mm long; rachillae 16–30 cm long, 3–4.5 mm diam., with distant triads in shallow pits; rachilla bracts proud, rounded to acute. **STAMINATE FLOWERS** not seen. **PISTILLATE FLOWERS** not seen at anthesis; in the fruit the sepals are 3.7–4.1 × 3.9–4.7 mm (the outermost largest), obtuse, with membranous margins; petals 5–6 × 3.9–4.7 mm, the innermost largest; staminodes 0.5–1.1 mm, thin and flat. **FRUIT** ellipsoid, 16–20 × 8.5–12.5 mm, rounded at base and apex, with sub-basal stigmatic remains (with a ridge to the stalk); endocarp fibrous, with slightly anasto-



**Dypsis
ceracea**