



**Dypsis
brevicaulis**

pistillode 0.8×0.5 mm, club-shaped. **PISTILLATE FLOWERS** with cucullate sepals; petals ovate, staminodes 6, very short at the base of an oblong ovary, this trigonous, with connivent stigmas. **FRUIT** unknown.

NOTE. This species has most distinctive long, narrow leaves.

SPECIMENS SEEN. Tolanaro: Analalava forest, Dec. 1971 (fl.), *Guillaumet* 4003b (K, P, type); Mt Vohimavo, N. of Ampasimena, March 1947 (old infl.), *Humbert* 20671 (K, P); St. Luce forest, March 1992 (ster.), *Beentje & Andriampaniry* 4610 (K, TAN).

96. DYPISIS FORFICIFOLIA

A slender solitary or clustered palm of the forest undergrowth. This is the commonest small palm of the forests of the northeast. It is very variable and, as can be seen from the list of synonyms, we are including within its range of variation species that have in the past been recognised as distinct. It appears to flower and fruit abundantly and so there should be little difficulty in obtaining seed. It would certainly make a very handsome ornamental. It could be confused with *D. ambilaensis* but differs in the position of the three stamens (see under *D. ambilaensis*). The species name is derived from the Latin for a pair of shears or scissors, presumably in reference to the forked leaves, reminiscent of an open pair of shears.

DISTRIBUTION. NE Madagascar, apparently quite common.

Dypsis forficifolia. View of crown and inflorescence form with divided leaves, Sahavary (*Dransfield et al.* JD6456).

HABITAT. Coastal lowlands and hill forest; 5–500 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. So widespread in the north-east of the island as to be at present not threatened.

Dypsis forficifolia *Noronha ex Mart.*

Hist. Nat. Palm. 3 (ed. 1): 180, t. 143, f. 2 (1838); Baill., Bull. Soc. Linn. Paris 147: 1161 (1894); Becc., Bot. Jahrb. Syst. 38, Beibl. 87: 12 (1906); Palme del Madagascar 10 (1912); Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 3, 6 (1): 30, 33 (1918); Bull. Acad. Malgache 6: 9 (1923); Cat. Pl. Madagascar, Palmae: 12 (1938); Jum. & H. Perrier, Fl. Madagascar 30: 39 (1945). Type: Madagascar, *Du Petit Thouars* s.n. (Holotype P).

SYNONYMS:

Dypsis hirtula Mart., Hist. Nat. Palm. 3 (ed. 1): 181 (1838); Becc., Palme del Madagascar 13 (1912); Jum., Cat. Pl. Madagascar, Palmae: 13 (1938). Type: Madagascar, "Rocam Bondi", *Poivre* s.n. (Holotype P). **Synon. nov.**

Dypsis littoralis Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 3, 6 (1): 34 (1918); Bull. Acad. Malgache 6: 10 (1923); Cat. Pl. Madagascar, Palmae: 13 (1938); Jum. & H. Perrier, Fl. Madagascar 30: 40 (1945). Type: Madagascar, Mananara, *Perrier* 12056 (Holotype P). **Synon. nov.**

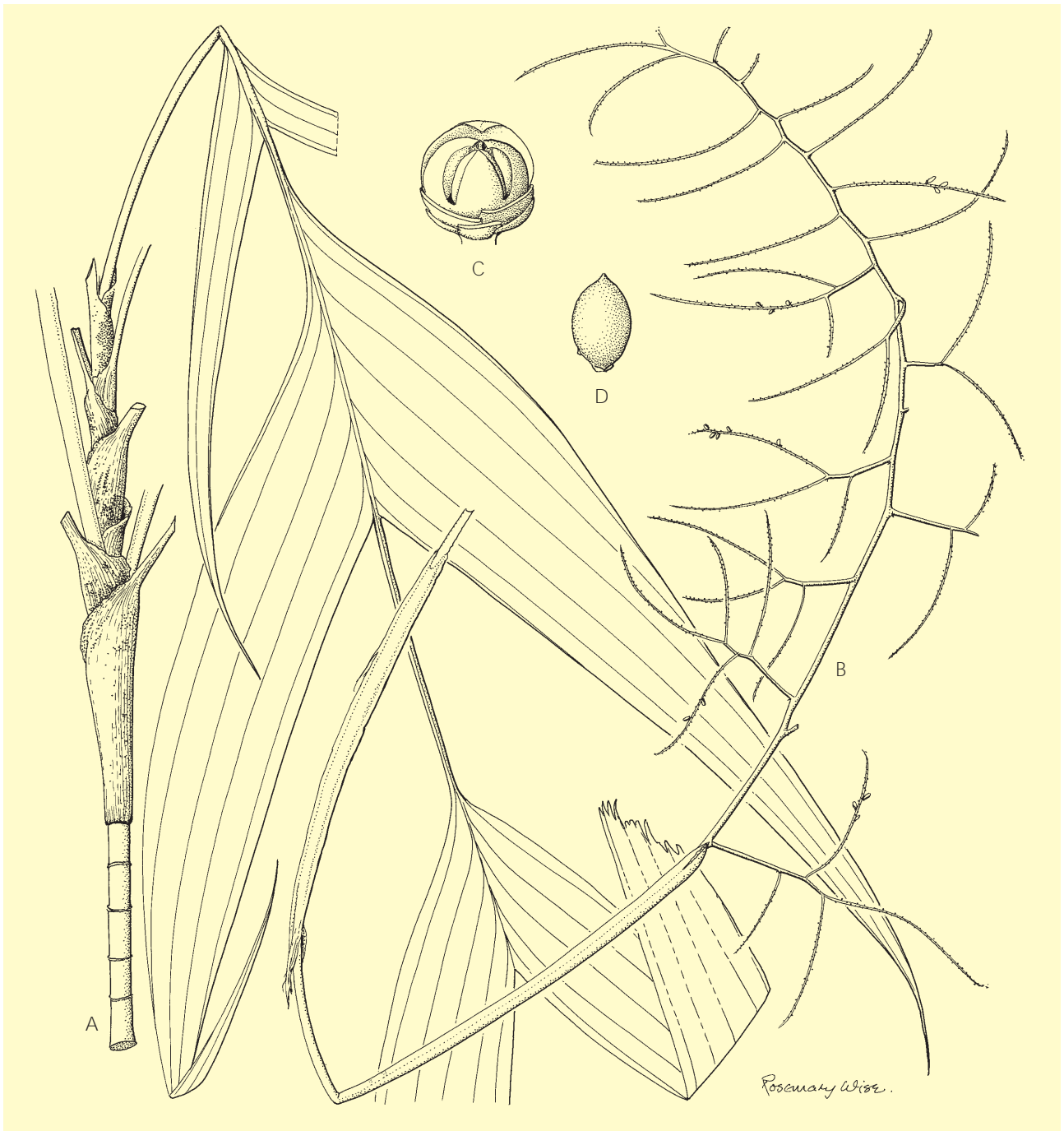
Dypsis masoalensis Jum., Ann. Inst. Bot.-Géol. Colon. Marseille sér. 3, 6 (1): 36 (1918); Bull. Acad. Malgache 6: 15 (1923); Cat. Pl. Madagascar, Palmae: 14 (1938); Jum. & H. Perrier, Fl. Madagascar 30: 48 (1945). Type: Madagascar, Masoala, *Perrier* 12034 (Holotype P). **Synon. nov.**



Dypsis forficifolia, a common forest undergrowth palm in north-east Madagascar, form with entire leaves (*Dransfield et al.* JD6387)

Slender, solitary or clustered forest undergrowth palm. **STEMS** to 4 m tall, c. 7–10 mm diam., internodes 8–30 mm long, often striped when young, dark green near the nodes, pale green between, with scattered to dense caducous dark brown scales, c. 8 × 5 mm. **LEAF** with sheaths 7–9 cm long, 0.7–1.8 cm diam., pale green, rather densely covered in caducous brown scales, auricles usually well developed, triangular; petiole absent or to 12 cm long, 2.5–4 mm wide, abaxially rounded or angled, adaxially grooved or flat; rachis 16–32 cm; blade entire bifid, to 35 × 18 cm, split from one third to one half the length, or with 2–6 leaflets on each side of the rachis; leaflets generally rather broad, occasionally a few narrow leaflets also present, 6–30 × 0.7–8 cm, apical pair with shallow apical lobing, adaxially lamina glabrous, abaxially with scattered bands of caducous, chaffy brown scales, abundant minute punctiform brown scales and scattered large ramenta to 6 mm long; emerging leaf sometimes tinged pink. **INFLORESCENCE** interfoliar, branching to 2, rarely to 3 orders; peduncle 22–50 cm long, c. 2 mm diam. near tip; prophyll 9–25 ×

0.4–0.8 cm, with scattered mid brown scales; peduncular bract similar to prophyll but exceeding it, 15–40 × 0.4–0.8 cm; rachis 13–40 cm long, glabrous or sparsely scaly; rachillae from 30 to c. 200, usually diverging at a rather wide but acute angle, occasionally reflexed, 2–4.5 cm long (rarely to 12 cm), 0.5–0.7 mm diam., glabrescent and slightly angled on drying, occasionally with sparse lacinate scales, bearing at anthesis rather distant triads of flowers, c. 1–4 mm distant, each subtended by a smooth entire or shallowly to deeply lacinate rachilla bract c. 1 mm high. **STAMINATE FLOWERS** c. 1 mm diam. at anthesis; sepals c. 0.5 × 0.5 mm, rounded, keeled, somewhat erose margined, shining; petals c. 1 × 0.8 mm, striate; stamens 3, antesepalous, filaments connate in a low ring c. 0.15 mm high, anthers c. 0.25 mm, staminodes absent; pistillode low, conical. **PISTILLATE FLOWERS** c. 1 mm diam., globose; sepals 0.5 × 0.5 mm, broadly imbricate; petals c. 1 × 0.8 mm, striate; staminodes 3 minute; ovary c. 0.8 mm diam. Mature **FRUIT** red, turning black, to c. 15 × 9 mm, ellipsoid. **SEED** 14 × 6 mm, endosperm homogeneous, embryo lateral near the base.



Dypsis forficifolia. **A** crown × 1/2; **B** inflorescence × 1/2; **C** staminate flower, one petal removed × 20; **D** fruit × 1. All from *Beentje et al.* 4633. Drawn by Rosemary Wise.



**Dypsis
forficifolia**

NOTE. Our interpretation of *D. hirtula* differs from that of Beccari (1910) and Jumelle and Perrier (1945). The holotype of *D. hirtula* is an unnumbered Poivre collection in the Jussieu Herbarium in Paris. Vegetatively this specimen fits within the range of variation of *D. forficifolia*. The inflorescence, however, is branched to three (very rarely four) orders and the rachillae are slender, bearing scattered dark brown lacinate scales and rather distant triads. Viewed in isolation the types of *D. forficifolia* and *D. hirtula* thus appear rather different and can be differentiated using the character of rachilla scaliness utilised by Beccari. However, with the wide range of material now available, illustrating considerable variation in *D. forficifolia*, it is no longer possible to make a clear distinction and we have concluded that *D. hirtula* represents one extreme of the variation of *D. forficifolia*. We have not been able to examine the Majastre collection illustrated by Beccari (1910) as *D. hirtula* but we suspect that this is *D. viridis*. Perrier 17466, cited in the Flore de Madagascar as *D. hirtula* and used as the basis of the illustration, is, we believe, *D. viridis* (q.v.). We have also included *D. masoalensis* in synonymy with *D. forficifolia*. Jumelle described the former as differing from the latter in the presence of lacinate rachilla bracts and hairs on the rachillae, and the presence of up to six leaflets on each side of the rachis. The leaf of *D. masoalensis* fits within the range of variation of *D. forficifolia* and the rachillae, similarly, in *D. forficifolia* can vary from being glabrous to with very sparse caducous lacinate scales and the rachilla bracts from being entire to sparsely lacinate. *D. littoralis* fits within the range of variation of *D. forficifolia* and so is included here too.

Plants from near Ambanizana, Masoala Peninsula, tend to have inflorescences branched to three rather than two orders with rather slender and very numerous more or less glabrous rachillae.

Dypsis forficifolia var. *reducta* has staminate flowers with six stamens with didymous anthers, so clearly does not belong here (see under *D. schatzii*).

SPECIMENS SEEN. Maroantsetra: Masoala, Aug. 1912 (buds), Perrier 12034 (Holotype of *D. masoalensis* Jum. P); idem, Aug. 1912 (buds), Perrier 12037 (P); Ambanizana, Oct. 1986 (fl.), Dransfield et al. JD6387 (BH, K, MO, P, TAN); Antalavia, Feb. 1988 (fr.), Dransfield et al. JD6470 (K, NY, MO, P, TAN); idem, Nov. 1989 (fr.), Dransfield et al. JD6746 (K, TAN); Andronabe, Feb. 1992 (fr.), Zjhra & Hutcheon 139 (K, MO, TAN); Andranofotsy River, Sahavary, Feb. 1988 (fr.), Dransfield et al. JD6450 (K, MO, NY, P, TAN); idem, Feb. 1988 (fr.), Dransfield et al. JD6456 (K, MO, NY, P, TAN); Bay of Antongil, Fananehana, Aug. 1912 (fl.), Perrier 12091 (P). Mananara Avaratra: Mananara, littoral forest, Aug. 1912 (fl.), Perrier 12056 (Holotype of *Dypsis littoralis* Jum., P); 10 km west of Antanambe, April 1992 (fl.), Beentje et al. 4624 (K, TAN); 5 km south of Antanambe, April 1992 (fl., fr.), Beentje et al. 4633 (BH, K, MO, P, TAN); idem, April 1992 (fl.), Beentje et al. 4637 (K, TAN). Soanierana-Ivongo: Soanierana-Ivongo, Feb. 1969 (fl.), Guillaumet 2406 (P). Île Sainte Marie: Tafondrou, March 1847 (fl.), Boivin 1704 (FI, P); Forêt de Kalalao, Nov. 1994 (fl., fr.), Dransfield JD7525 (K, P, TAN). Without locality: *Du Petit Thouars* s.n. (Holotype P); *Poivre* s.n. (Holotype of *D. hirtula* Mart., P).

97. DYPISIS INTERRUPTA

A strikingly beautiful small palm of the forest undergrowth, known as yet from a single collection from the lowlands in the southeast of the island. The species name refers to the interrupted sequence of otherwise regularly arranged leaflets on each side of the rachis.

DISTRIBUTION. Ifanadiana area.

HABITAT. Hill forest; 510 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Critical. The extraordinary forests of Ambinanindrano are gradually being destroyed by shifting cultivation.

Dypsis interrupta J. Dransf., sp. nov.

inter species floribus staminatis triandris staminibus antesepalis pistillodio conico foliolis linearibus numerosis in quoque latere rachidis interrupte dispositis distinctissima. Typus: Madagascar, East Coast, Ifanadiana, Ambinanindrano, Beentje 4528 (Holotypus K; isotypus TAN).

Solitary palm of forest undergrowth. **STEMS** to 3 m tall, c. 12 mm diam.; internodes 60–70 cm long. **LEAVES** 7 in crown; sheaths forming a well defined crownshaft; sheath 19–20 cm long, 1.5 cm diam., with sparse scattered dark brown scales; low auricles present but apparently soon tattering; petiole 9–12 cm long, c. 4 × 2 mm in cross section, deeply channelled, rather densely covered in discrete dark brown scales; rachis 64–70 cm long, scaly as the petiole; leaflets 24–29 on each side of the rachis, all except the apical pair single-fold, linear, grouped in proximal part of the leaf, regularly arranged distally, regularly arranged within the groups, the leaflet series thus appearing interrupted rather than fascicled, mid-leaf leaflets 15–23 × 0.8–1.5 cm, apical pair slightly shorter, basalmost leaflets 6–8 × 0.4–0.8 cm, leaflet