



pistillode 0.2–0.3 mm. **PISTILLATE FLOWERS** with sepals imbricate, 0.8–1.3 × 0.6–1.3 mm, concave, keeled, non-ciliolate; petals proximally imbricate and membranous, distally valvate and fleshy, 1.2–1.8 × 0.9–1.5 mm, concave, elliptic, acute, striate; once (in *Schatz* 1694, a single flower) with a second series of smaller petals inside the outer series, 1.2 mm long; staminodes 6, 0.2–0.4 mm high, from thin to broad and tooth-shaped; ovary 0.8–1.4 × 0.8–1.3 mm, with a low pyramidal stigmatic bump. **FRUIT** deep shiny red, ellipsoid with a slightly pointed apex, 10–15 × 5–9.5 mm; mesocarp c. 2 mm thick, fleshy; endocarp with 22–30 free longitudinal fibres. **SEED** 8.5–10 × 4–5.5 mm, the base pointed, the apex obtuse; endosperm homogeneous. **EOPHYLL** bifid.

NOTE. *N. indivisa* was put into synonymy by Jumelle (1929). Northern populations have generally longer peduncles and more glabrous rachillae, but not consistently so.

Jacquemin H572J has the staminate and pistillate flowers at almost the same stage of development on a single rachilla, which is most unusual in *Dypsis*. *Guillaumet* 2161 has the stamens larger than in all other specimens studied; the measurements of this specimen are included in the description in brackets.

SPECIMENS SEEN. Bealanana: Tsaratanana area, Nov. 1912 (old infl.), *Perrier* 12026 (P); Bealanana to Mangindrano, July 1968 (fl.), *Guillaumet* 2161 (K, P, TAN). Andapa: Andapa to Doana, Andranotsara valley, Oct. 1967 (fl., fr.), *Jacquemin* H572J (P); Marojejy, E of Ambalamanasy II, Dec. 1948 (fl., y.fr.), *Humbert & Capuron* 22119 (K, P); Marojejy, Nov. 1972 (fl.), *Guillaumet* 4037 (TAN), and Dec. 1972 (fr.), *Guillaumet* 4204 (TAN); N slopes of Ambatosoratra, Feb. 1989 (fl.), *Miller* 4257 (TAN). Maroantsetra/Antalaha: Masoala Peninsula, Oct. 1912 (bud), *Perrier* 11948 (P). Ambatondrazaka: Didy forest, Aug. 1889 (fr.), *Catat* 1732 (Holotype P); Zahamena, March 1941 (fr.), *Decary* 16532 (P). Moramanga: Analamazaotra, Sept. 1913 (old infl.), *Perrier* 11996 (P); idem, Dec. 1913 (fr.), *Perrier* 11995 (P); idem, July 1913 (bud), *Perrier* 11998 (P) and 11999 (P); idem, 1912 (fl.), *Viguiet & Humbert* 1084 (P); idem, March 1991 (fr.), *Beentje & Raharilala* 4410 (BH, K, MO, TAN); Anranumenabe, Nov. 1986 (bud), *Dransfield et al.* JD6434 (K, TAN); Maromizaha, Feb. 1926 (fr.), *Perrier* 15985 (P);

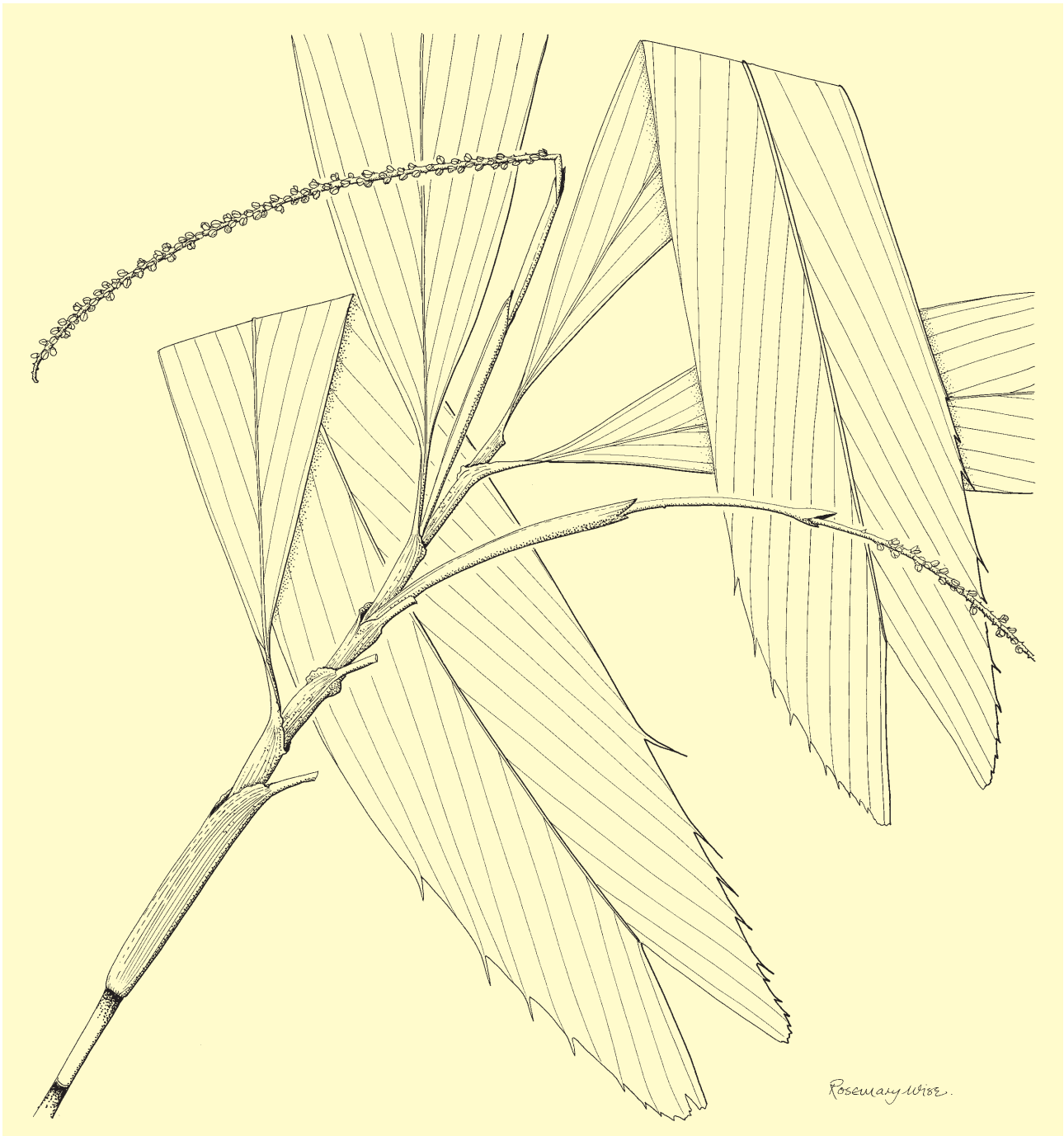
S of Moramanga, Feb. 1930 (fr.), *Decary* 7106 (P), 7161 (P). Anosibe an'Ala: Sandrangato, Dec. 1954 (fl.), *Descoigns* 122a (TAN). Ambositra: Ranomena, July 1992, *Beentje* 4739 (K, MO, TAN). Ifanadiana: Ranomafana, Jan. 1964 (fr.), *Bosser* 18916 (P); idem, Oct. 1987 (fl.), *Schatz et al.* 1693 (P, TAN) and 1694 (K, P, TAN); idem, March 1991 (fr.), *Beentje* 4428 (K, TAN), 4429 (BH, K, MO, P, TAN); idem, Vatoranana to Maharira, March 1992 (fr.), *Malcomber & Rakoto* 1326 (K, P). Ivohibe: Ihovika R. (dead infl.), *Perrier* 11974 (P, type of *N. indivisa*). Midongy Atsimo: 24 km S of Midongy, May 1992 (fr.), *Beentje & Andriampaniry* 4669 (K, MO, P, TAN). Befotaka: Mt. Papango, Dec. 1928 (fl.), *Humbert* 6891 (P, TAN). Tolanaro: summit of Marosoui (Marosohihy), Nov. 1928 (bud), *Humbert* 6624 (P, TAN); Bevava col to Bekoho summit, Nov. 1928 (bud), *Humbert* 6425bis (P); Enaniliha, Feb. 1966 (fr.), *Rabevazaha* RN 11521 (P); idem, Dec. 1959 (fl.), RN 10387 *Rakotoson* (K, P); between Saindro Col and Eminiminy, Feb. 1934 (fl., y.fr.), *Humbert* 13999 (K, P); N part of 'chaines anosyennes', Nov. 1971 (bud), *Guillaumet* s.n. (P, TAN); Andohahela, Col Tanatana, Dec. 1989 (fl.), *Dransfield et al.* JD6773 (K, P, TAN) and (fl.) JD6774 (K, TAN); Andohahela, March 1992 (fr.), *Beentje & Andriampaniry* 4594 (BH, K, MO, P, TAN); idem, Dec. 1992 (fr.), *Beentje & Andriampaniry* 4766 (TAN); idem, Itrotroky R, Feb. 1993 (fr.), *Malcomber* 2129 (K, P). Locality not found: Andrianony, Manjarivolo, Nov. 1970 (bud), *Guillaumet* 3511 (P, TAN).

88. DYP SIS CORIACEA

A very attractive small palm with thick shiny leaves. This species was known as 'leather-leaf' among collectors, and the Latin name is a straight translation of this. The entire leaf dries pale green, which is most distinctive.



Dypsis coriacea. An undergrowth palm with very leathery leaves, Sahavary (*Dransfield et al.* JD6459).



Dypsis coriacea. Crown with inflorescences $\times 2$. From *Beentje et al.* 4617. Drawn by Rosemary Wise.

DISTRIBUTION. Masoala, Maroantsetra and Mananara.

HABITAT. Lowland rain forest; on steep slope near stream, or on ridgetops; 200–400 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Vulnerable. The species has a limited distribution area, most of which is unprotected and under some threat.

Dypsis coriacea *Beentje* sp. nov.

gregem palmuncolorum 6-staminatorum foliis integris pertinens *D. lucenti* affinis sed rachillis lepidotis et folio glabro multo coriaceo differt. Typus: Madagascar, Sahavary, *Dransfield et al.* JD6459 (Holotypus K; isotypi P, TAN).

Solitary or clustering palm. **STEM(S)** 1–2 m, diam. < 1 cm; distal internodes 2–4.5 cm, pale green with dense to scattered reddish pubescence; nodal scars c. 1 mm. **LEAVES** 6–9 in the crown, entire or with 4 leaflets; sheath 4–9 cm long, closed, pale brown with reddish scales and without or with auricles to 8 mm long; petiole 1–12 cm long, channelled, c. 2 mm diam., with scattered scales; lamina *entire*, leathery, rich shiny green and occasionally metallic-tinged, 15–41 \times 6–8 cm, lobes 5–12 \times 1.5–4 cm; main vein 1, with sparse red and white scales on the midrib, otherwise with few scattered scales to glabrous, the lamina often white-punctate, often with a single deep (to 6 cm) lacuna, in the distal quarter the margins toothed, the teeth to 16 mm long. **INFLORESCENCE** interfoliar, unbranched, spreading; peduncle 8–28 cm long, 2–3 mm diam., glabrous; prophyll 5–16 cm long, 4–6 mm wide, opening in the distal 1 cm only, with scattered scales to almost glabrous; peduncular bract inserted at 5–13 from the base of the peduncle, 3–12 cm



**Dypsis
coriacea**

long, open in the distal 1–1.5 cm, with scattered scales, quickly deciduous; non-tubular peduncular bract 2–2.5 mm; rachilla 3–26 cm long, 1–2 mm diam., densely pubescent to puberulous, with distant triads. **STAMINATE FLOWERS** with sepals 0.8–1.5 × 0.7–1.6 mm, ciliate, with scales; petals white, 1.8–2.4 × 1–1.7 mm, striate; stamens 6, uniseriate or very slightly biseriate, filaments 0.8–1.5 mm, thin, anthers 0.8–1.6 × 0.3–0.6 mm, versatile; pistillode 0.7–1 × 0.3–0.5 mm. **PISTILLATE FLOWERS** with sepals 0.8–1.2 × 1.4–1.7 mm; petals 2.1–4 × 1–2.8 mm; staminodes 6, c. 0.5 mm; ovary c. 2 × 1.3 mm. **FRUIT** when young narrowly ovoid, 11–15 × 4.5–6 mm, obtuse, with fleshy mesocarp and fibrous endocarp. **SEED** c. 12.5 × 4 mm, with homogeneous endosperm.

NOTE. The species somewhat resembles *D. lucens* but the leaf veins are glabrous and there are no rammenta; the rachilla is puberulous. It also resembles *D. catariniana*, but has versatile stamens (not didymous ones). There is some variation in the degree of lobing and the length of the rachilla.

SPECIMENS SEEN. Maroantsetra: Hiaraka, Ampanga R., Oct. 1986 (bud), *Dransfield et al.* JD6382 (K, TAN); Sahavary, Feb. 1988 (fl., y.fr.), *Dransfield et al.* JD6459 (Holotype K; isotypes P, TAN); Antalavia, Feb. 1988 (fl.), *Dransfield et al.* JD6482 (K, TAN); Andronabe, Feb. 1992 (fl.), *Zjhra & Hutcheon* 120 (K). Mananara Avaratra, Antanambe, April 1992 (fl., y.fr.), *Beentje et al.* 4617 (BH, K, MO, P, TAN).



Dypsis coriacea. Close-up of infructescence (*Dransfield et al.* JD6459).

89. DYPISIS MINUTA

The name of this exquisite little palm, which is restricted in its distribution, indicates its size; it is a tiny solitary palm, one of the smallest on the island.

DISTRIBUTION. Masoala and Maroantsetra.



**Dypsis
minuta**