



erect to spreading to semi-pendulous, branched to (2) 3 (4) orders, 25–55 cm long; peduncle 12–25 cm long, proximally 3–6 mm diam. and flattened, distally 1.6–5 mm diam. and cylindrical, densely scaly but glabrescent; prophyll 14–26 cm long, borne at 2–3.5 cm above the base of the peduncle, up to 1.3 cm wide, pale brown with scattered scales, opening near the apex only; peduncular bract quickly deciduous, inserted at 7–14 cm from the base of the peduncle, 15–19 cm long, split in its distal half except for the distal 1–2 cm, with a narrow beak of 0.5–1 cm, pale brown with scattered scales; rarely with a small (1.5 mm) non-tubular peduncular bract in the distal part of the peduncle; rachis 7–40 cm long, scaly, with 7–27 branched and 0–10 unbranched first order branches, the proximal ones near their base 1.5–3 mm diam. and hardly flattened; rachillae 0.7–6.5 cm long, c. 1 mm diam., sparsely scaly, with distant superficial triads, with green to cream flowers. **STAMINATE FLOWERS** with sepals 0.5–0.8 × 0.8–1 mm, keeled, gibbous at the base, broadly ovate, rounded; petals on a 0.4 mm high receptacle, 1.4–1.8 × 1.4–1.6 mm, ovate to elliptic, acute, opening only slightly; stamens 6, at anthesis poking through the slits in the corolla, with the anthers held vertically, their openings upward, slightly 2-seriate, the antepetalous filaments with small swellings at the base and inserted slightly higher than the antepetalous ones, 1.2–1.5 mm long, thin, anthers 1.2–1.3 × 0.4–0.5 mm, dorsifixed, versatile, the locules parallel and obtuse; pistillode 0.7–0.8 mm high, ellipsoid, 0.5–0.6 mm diam. **PISTILLATE FLOWERS** with sepals 0.8–1.1 × 1.2–1.8 mm, broadly ovate, rounded, concave; petals proximally imbricate and broadly ovate, distally triangular, fleshy and acute, 2–2.3 × 1.6–2.2 mm; staminodes 6, 0.3–0.5 mm, dentiform, flat; gynoeceum 2.4–2.6 × 2–2.2 mm, asymmetrically gibbous. **FRUIT** red, ellipsoid, 6–11 × 3.5–6.5 mm, with slightly pointed apex; mesocarp fleshy, c. 1 mm thick; endocarp fibrous with free fibres. **SEED** ellipsoid, 6.5–9 × 3–5 mm, obtuse to pointed at both ends; endosperm homogeneous. **EOPHYLL** bifid.

NOTE. *N. affinis* was described by Beccari based on an inflorescence collected by Cloisel (called Choisel by Beccari), which resembles that of *N. scottiana* closely. Beccari distinguished the species by the branching of the inflorescence: *N. scottiana* branched to two orders, *N. affinis* branched to three orders. However, the type of *N. scottiana* is clearly branched to three

orders, and we hereby put *N. affinis* into the synonymy of *D. scottiana*.

Jumelle mentions the two species only briefly in his 1929 revision of *Neophloga*, since he did not believe the two taxa belonged to the genus. Not hampered by the fact that he had not seen the type of *N. scottiana*, he based his opinion on the description by Beccari (to whom he usually refers to as ‘the Italian botanist’). In the Flora (Jumelle & Perrier 1945) the species are treated under *Neophloga*, with the brief remark that they are intermediate between *Neophloga* and *Chrysalidocarpus*.

A collection from lowland rain forest (*Beentje* 4599) matches the collections from white sand forest and heath scrub at much lower altitudes; the main differences are the higher number of leaflets (up to 27 on each side of the rachis, rather than the 11–19 of the white sand populations) and the slightly longer petiole. The inflorescence agrees perfectly, however, and we see no reason to distinguish the forms formally. A collection from Manombo Forest, much further north, looks similar to *D. scottiana*, but with the following differences: leaf sheath 6.5–9.5 cm long; **LEAFLETS** 7–11 on each side of the rachis; inflorescence branched to 2 orders; prophyll and peduncular bract slightly shorter; rachis with 1–5 branched and 8–9 unbranched first order branches; **STAMINATE FLOWERS** with sepals 0.7–1.2 mm. Other characters overlap [Farafangana: Manombo, Jan. 1993 (fl.), *Beentje & Andriampaniry* 4782 (K, MO, P, TAN)]. It is not the same, but is verging towards it!

SPECIMENS SEEN. Tolanaro: forest near Fort Dauphin (Tolanaro), May 1890 (fl.), *Scott Elliot* 2615 (Holotype K); between Pic St. Louis and the sea, 1928 (fl.), *Humbert* 5958 (P); 13 km N of Ezoambo, March 1992 (fr.), *Beentje & Andriampaniry* 4599 (K, MO, TAN); 24 km N of Tolanaro, April 1989 (ster.), *Rabevohitra et al.* 1932 (K, P); idem, March 1992 (fl.), *Beentje & Andriampaniry* 4607 (BH, K, MO, P, TAN) and (fl., fr.), *Beentje & Andriampaniry* 4608 (BH, K, MO, P, TAN); St. Luce forest, March 1992 (fl., fr.), *Phillipson et al.* 3961 (K); idem, Dec. 1992 (fl.), *Beentje* 4759 (K, MO, P, TAN); L. Mananivo–Andriamanga, March 1989 (fl.), *Dumetz et al.* 616 (K, P); NW Marokoky, March 1989 (y.fr.), *Dumetz et al.* 618 (K, P, TAN); Mandena, March 1989 (fl., fr.), *Dumetz et al.* 503 (MO); idem, (fl.), *Dumetz et al.* 527 (K, P); idem, April 1989 (bud, fr.), *Rabevohitra et al.* 1888 (K, P). Fort Dauphin (Tolanaro), without further locality, without date (fl.), *Cloisel* 108 (P, type of *N. affinis*); idem, Oct. 1932 (fl., fr.), *Decary* 10729 (K, P, TAN).

50. DYPISIS SINGULARIS

A handsome small palm, sadly on its way to extinction. The name indicates that it is a peculiar taxon (due to the didymous stamens on a palm of this habit), as well as the fact that it is known from a single collection from only one site. Nevertheless, it is a distinct species.

DISTRIBUTION. Only known from Manombo forest.

HABITAT. Lowland rain forest; slope base; c. 45 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Critical. Single-site status, in a forest being gradually destroyed by fire, shifting cultivation and logging; numbers low, estimated at less than a hundred.

Dypsis singularis Beentje *sp. nov.*

Palma concinna foliolis paucis connatis inflorescentia in 2 ordines ramificanti *D. commersonianae* affinis sed antheris didymis distincta. Typus: Madagascar, Manombo, Beentje 4513 (Holotypus K; isotypus TAN).

Solitary palm to 6 m. **STEM** distally c. 1 cm diam; internodes distally c. 0.5 cm, nodal scars c. 1 mm. **LEAVES** c. 6 in the crown, porrect, pinnate; sheath 9–13 cm long, with scattered reddish scales which are rather dense distally, and auricles to 1 cm long; petiole

0–1.5 cm long, 3–7 × 2–3 mm diam., with scattered scales; rachis 40–59 cm long, in mid-leaf 2.5–4 mm wide, with tiny scattered scales; leaflets 3–7 on each side of the rachis, solitary or in groups of 2, group interval 6–16 cm, leaflet interval 0.5–0.8 cm, proximal 8–16 × 0.6–2.2 cm, median 16–25 × 1.5–5 cm, distal 14–19 × 3.5–6 cm, main veins 3–5 (but faint), up to 7 in the distal pair, with scattered scales on the major and minor veins, distal pair joined for 4–8 cm, dentate over a width of 0.5–1.7 cm.

INFLORESCENCE interfoliar, branched to 2 orders; peduncle 51–61 cm long, 2.5–3 mm diam., glabrous; prophyll 29–37 cm long, 8–18 mm wide, borne at 4–10 cm above the base of the peduncle, open in the distal 1.5–4 cm with scattered scales; peduncular bract inserted at 18–20 cm from the base of the peduncle, 36–41 cm long, open in the distal 3.5–5 cm, with scattered scales; rachis 37–69 cm long, glabrous, with 13–23 branched and 15–23 unbranched first order branches, the proximal to 12.5 cm long and with up to 7 rachillae; rachillae 5–19 cm long, 1 mm diam., glabrous. **STAMINATE FLOWERS** in young bud with sepals 0.5–0.7 ×



Dypsis singularis. **A** crown with inflorescence × 1/5; **B** detail of rachilla × 4. All from Beentje 4513. Drawn by Margaret Tebbs.



**Dypsis
singularis**

0.5–0.8 mm; petals 0.8–1.3 × 0.7–0.8 mm; stamens 6, uni- or biserial, didymous, filaments 0.3 mm long (and possibly connate for 0.5 mm?), anthers 0.2 × 0.3 mm; pistillode c. 0.3–0.4 × 0.4 mm. **PISTILLATE FLOWERS** with sepals 0.6–0.7 × 0.6–1 mm; petals 1.2–1.5 × 0.9–1.6 mm; staminodes invisible; pistil 1.5–1.6 mm high, c. 1.8–1.9 mm diam. **FRUIT** unknown.

NOTE. With its few broad, connate leaflets and inflorescence branched to 2 orders it resembles *D. commersoniana* and *D. humbertii* but is distinct in the didymous anthers.

SPECIMENS SEEN. Farafangana: Manombo, Nov. 1991 (bud), *Beentje* 4513 (Holotype K; isotype TAN).



Dypsis singularis, at Manombo (*Beentje* 4513).

51. DYP SIS INTERMEDIA

A strange little palm, only known from a single forest, with leaves resembling those of *D. commersoniana*, and the inflorescence that of *D. scottiana*; the name refers to this.

DISTRIBUTION. Only known from Manombo.

HABITAT. Lowland rain forest; gentle slope; 30–60 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Critical. Only known from a single forest, which is disappearing steadily. Numbers are estimated at less than fifty.

Dypsis intermedia *Beentje* sp. nov.

Palma concinna foliolis paucis connatis inflorescentia in 2 ordines ramificanti *D. commersonianae* affinis sed antheris didymis distincta. Typus: Madagascar, Manombo, *Beentje & Andriampaniry* 4794 (Holotypus K; isotypus TAN).



**Dypsis
intermedia**