

usually without) forked first order branches, and 5–13 unbranched first order branches; rachillae 4–12 cm long, 1.5–2.5 mm diam., densely pubescent or puberulous, or with sparse scales. **STAMINATE FLOWERS** with sepals orange, 1.3–1.8 × 1.2–1.7 mm; petals orange, 2–2.6 × 1.3–1.5 mm (on an up to 0.6 mm high receptacle); stamens 6, white, uniseriate, the filaments 0.6–0.9 mm long and thin, the anthers 1.2–1.3 × 0.5–0.7 mm, dorsifixed with parallel locules; pistillode 0.7–1 × 0.3 mm, conical. **PISTILLATE FLOWERS** with sepals 1–2 × 1.3–2.2 mm; petals 3–3.4 × 3–3.6 mm; staminodes 6, 0.2–1 mm; pistil c. 2.5 × 1.9 mm. **FRUIT** only seen young, then golden yellow and c. 8.5 × 4 mm, with subaequatorial stigmatic remains. **SEED** 8 × 3.5 mm, with homogeneous endosperm.

NOTE. Slightly similar to *D. linearis* in the stout, erect inflorescence with orange axes and very hairy, rather fat rachillae; but distinct in much slighter build, the build and size of the leaflets. Other relationships are probably with *D. concinna* and *D. heterophylla*.

Nosy Varika: Sakaleona valley, June 1939 (fl., y.fr.), *Decary* 14220 (P) is similar, but differs in the petiole (6–11 cm long), rachis (to 23 cm long), peduncle (14–16.5 cm), rachillae 14–18 cm long; the peduncular bract is inserted at 8 cm from the base of the peduncle, and is 10.5 cm long. *Pistillate flowers* were within the range given above; fruit was 6–6.5 × 4–5 mm, and seed 4 × 3 mm, with homogeneous endosperm.

SPECIMENS SEEN. Andapa: E Marojejy, W of Manantenina R, March 1949, (y.fr.), *Humbert & Cours* 23729 (P); idem, (bud), *Humbert* 23682b (K, P); Mt Beondroka, N of Maroambihy, March 1949 (bud), *Humbert* 23493 (K, P). Maroantsetra: Ambanizana, Andohitsitondroina Pk, Dec. 1989 (fl.), *Schatz & Modeste* 2897 (Holotype K; isotypes MO, P, TAN); idem, March 1992 (y.fr.), *Zjhra & Hutcheon* 203 (K).



**Dypsis
bonsai**

SIMILAR SPECIMENS. Several collections from the Ambatondrazaka/Zahamena area are reminiscent of both *D. bonsai* and *D. concinna*: Ambatondrazaka: Sahamalaza, Aug. 1937 (bud), *Herb. Jard. Tananarive* 18.8.1937 (K, P); Zahamena, March 1941 (old infl., fr.), *Decary* 16680 (P); Manaka E, April 1961 (old infl.), *Serv. Eaux & Forêts RN* 11850b (K, P). Differences with above description: sheath 8–10 cm, petiole 0–0.2 cm, rachis 11–34 cm; leaflets 14–21 on each side of the rachis, the proximal 1–5 cm long; almost glabrous. Inflorescence with peduncle 14–21 cm; peduncular bract 4–8 cm long (inserted at 10–13 cm), rachis 1–6 cm with 4–8 branches; rachillae 3–6.5 cm; fruit 7–9.5 mm × 4–5 mm, seed c. 6.5 × 3.5 mm.

56. DYP SIS CAUDATA

A very distinctive species with its long-acuminate, even caudate leaflet tips (hence the name), which are pendulous at almost right angles to the main part of the leaf. The custard yellow flowers are particularly attractive.

DISTRIBUTION. Masoala Peninsula, known from a single site.



Dypsis caudata. A beautiful palm with neat foliage and custard yellow flowers, Antalavia (*Dransfield et al.* JD6478).



Dypsis caudata. **A** crown and infructescence $\times 1/2$; **B** fruit $\times 3$; **C** seed in section $\times 3$. All from *Dransfield et al.* JD6478. Drawn by Rosemary Wise.

HABITAT. Lowland rain forest; steep slope or valley bottom; 50–300 m.

LOCAL NAMES. Not recorded.

USES. Not recorded.

CONSERVATION STATUS. Critical. Only known from a single site, in an unprotected area. Numbers are thought to be low.

Dypsis caudata Beentje *sp. nov.*

A ceteris speciebus 6-staminatis caulibus caespitosis foliis fasciculatis ovatis abrupte caudati distincta. Typus: Madagascar, Antalavia, *Dransfield et al.* JD6478 (Holotypus K; isotypus TAN).

Clustering palm. **STEMS** 1–3 m, 0.5–1.5 cm diam.; internodes 1–6 cm, green when young, later blackish, distally with dark scales; crownshaft indistinct. **LEAVES** 6–11 in the crown; sheath c. 10 cm long, pale green with dense dark scales or later with scattered scales; petiole 6–20 cm long, 2–3 mm diam., rusty-scaly, becoming more glabrous; rachis 25–46 cm long, in mid-leaf 2–2.5 mm wide, rusty-scaly; leaflets 11–15 on each side of the rachis, in groups of 2–4, group interval 4–7 cm, proximal 8–10 \times 0.5–1.5 cm, median 8–14 \times 1.5–2.2 cm, distal 6–8 \times 1–2.2 cm, narrowly obovate, with abrupt and pendulous drip-tips 2–4 cm long, main vein 1, with scattered scales on the minor veins and when young with bands of scales on the adaxial midrib, and on the margins (especially on the distal margin), distal pair joined for < 1 cm, dentate over c. 10 mm. **INFLORESCENCE** branched to 1 order, custard orange-yellow; peduncle c. 31 cm long, c. 1.5 mm diam., scaly; prophyll 19–29



**Dypsis
caudata**

cm long, 4–7 mm wide, opening in the distal 1 cm only, with scattered scales; peduncular bract inserted at c. 16 cm from the base of the peduncle, c. 11 cm long; non-tubular peduncular bract 2–4 mm long; rachis c. 7 cm long, with c. 11 branches; rachillae orange, 4–5.5 cm long, c. 1 mm diam., minutely puberulous and scaly. **STAMINATE FLOWERS** with sepals 0.7–0.8 × 0.7–0.8 mm; petals orange, 1.5–1.7 × 1.4–1.5 mm; stamens 6, biseriate (offset 0.2 mm), filaments 0.6–0.8 mm, thin; anthers 1–1.2 × 0.7 mm; pistillode c. 0.8 × 0.3–0.4 mm. **PISTILLATE FLOWERS** with sepals 0.7–0.8 × 0.6–1 mm; petals orange, 2.2–2.3 × 1.5–2.4 mm; staminodes 6, c. 0.4 mm; pistil c. 2.2 × 1.5 mm. **FRUIT** orange, 8–11 × 3.5–5 mm. **SEED** c. 7 × 3.5 mm, with homogeneous endosperm.

NOTE. Probably related to *D. linearis* but very distinct in its leaflets with their long drip-tips.

SPECIMENS SEEN. Maroantsetra: Antalavia, Feb. 1988 (fl., y.fr.), *Dransfield et al.* JD6478 (Holotype K; isotype TAN); idem, April 1988 (fr.), *Gentry & Schatz* 62179 (K); idem, Nov. 1989 (bud), *Dransfield et al.* JD6741 (K, TAN).

57. DYP SIS SCANDENS

This remarkable species is the first climbing palm to be recorded for Madagascar. In habit and texture, it bears an uncanny resemblance to the central American climbing palm, *Chamaedorea elatior* Mart., so much so that on first finding it in November 1994, we had to examine the inflorescences closely to convince ourselves that the plant was an Arecoid palm rather than a Ceroxyloid.

Its discovery, just before the manuscript of this book was completed, emphasises yet again the extraordinary richness of the Madagascar palm flora and how much there may yet be to discover and describe. The species name is Latin for ‘climbing’.



Dypsis scandens, growing on a quartzite ridge near Ifanadiana.

DISTRIBUTION. Ifanadiana area, only known from one site.

HABITAT. Low canopy forest with small crowns on poor soils on quartzite ridge; 500 m.

LOCAL NAMES. *Olokoloka* (Tanala).

USES. Stems harvested for splitting to make fish traps, bird cages and hats. Said to be widespread in the area, but much harvested.

CONSERVATION STATUS. Probably endangered if not critical. The forests in this area are not protected, and are under pressure from shifting cultivation.

Dypsis scandens *J. Dransf.*, **sp. nov.**

habitu scandenti, caudicibus gracilibus vaginis foliorum glabris, foliis divaricatis, basin pulvinatis, inflorescentia in 2 ordines ramificanti instanter distinguibilis. Typus: Madagascar, Ifanadiana, *Dransfield & Beentje* JD7515 (Holotypus K; isotypi BH, P, TAN).

Clustering, climbing palm. **STEMS** to 8–10 m long, flexible, 7–12 mm diam., internodes 20–31 cm long, bright green, with scattered dark brown scales, nodal scars c. 2 mm wide; sheathed stem c. 1.5–1.8 mm diam. Stems carrying about 15 green leaves and several dead marcescent leaves. **LEAF**-sheaths 15–30 cm, pale green, smooth, with thin white wax, glabrous, turning dark