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PALMS OF MADAGASCAR

DYPSIS

7-37 x 0.6-1.5 cm (terminal pair joined for up to 3.5 cm), the apices attenuate, with 5-9 faint veins but with only the midrib very prominent on both surfaces, with a few tufts of large ramenta on the abaxial midrib, and with many small scattered glands in long lines on the minor veins (these sometimes absent). **Inflorescence** interfoliar, sometimes the fruiting stage infrafloreal, spreading with spreading rachillae, branched to 3 orders (rarely to 2 or 4 orders); peduncle 34-88 cm long, flattened, proximally 2.7-6 x 1.3 cm, distally c. 1.3-2.7 x 0.6 cm diam., glabrous; prophyll 31-102 cm, borne at 5-47 cm above the base of the peduncle, 3.3-4.2 cm wide, with narrow wings, split only at the apex for 7-16 cm, with scattered scales; peduncular bract inserted at 38–68 cm from the base 10 cm, with a break of 2.5-4 cm, pale brown, waxy and glabrous or with a few scattered scales, abscising and carried up by the lengthening inflorescence and rather quickly deciduous; non-tubular peduncular bracts few, 3-5 x 10-12 mm; rachis 20-110 cm, glabrous, with 5-13 branched and 8-14 unbranched first order branches, the peduncle 34-88 cm long, flattened, proximally 2.7-6 x 1.3 cm, distally c. 1.3-2.7 x 0.6 cm diam., glabrous; prophyll 31-102 cm, borne at 5-47 cm above the base of the peduncle, 3.3-4.2 cm, closed for the distal fourth of the peduncle, 48-60 cm long, 4.5 cm wide, closed for the distal 10 cm, with a break of 2.5-4 cm, pale brown, waxy and glabrous or with a few scattered scales, abscising and carried up by the lengthening inflorescence and rather quickly deciduous; non-tubular peduncular bracts few, 3-5 x 10-12 mm; rachis 20-110 cm, glabrous, with 5-13 branched and 8-14 unbranched first order branches, the proximal of these with flattened bases 1-1.5 x 0.6-0.7 cm and sub-tended by bracts of 6-7 mm high; rachillae 6-30 cm long, 2.5-3 mm diam.; triads distant proximally, more dense distally, inserted in shallow pits; rachilla bracts proud, acute. **Staminate flowers** with sepals 1.6-1.8 x 2.2-4.5 mm, hooded, rounded, gibbous, keeled; petals connate for 1-1.3 mm to the receptacle, free for 1.3-3 x 2-2.3 mm, ovate, acute; stamens 6, unisepalous, the filaments 2.8-3.2 mm long, anthers 1.6-1.8 x 0.9 mm, dorsifixed; pistillode 2.5-2.8 x 0.4-0.5 mm. **Pistillate flowers** with sepals 2-2.2 x 2.2-2.5 mm, hooded, neither gibbous nor keeled; petals free, 2.8-3.2 x 2.3-3 mm, orbicular or broadly ovate, with small apicula; staminodes 0.3-0.4 mm, thin, empty, ovary c. 3 x 1.4 mm, with short stigmas. **Fruit** yellow, ellipsoid to obovoid, 12-18 x 7-10 mm, with a pointed apex; endocarp long-fibrous, the fibres almost free. **Seed** ovoid with an obtuse apex and a pointed base, 11-16 x 6-9.5 mm, with homogenous endosperm. Germination adjacent-ligular; eophyll bifid.

**Note.** Wendland described the genus Chrysalidocarpus and the species Chrysalidocarpus lutescens at the same time; he also mentioned that this was a common indoors palm in Europe, known as Areca or Hyophorbe indica or lutescens, and also as Areca borbonica or A. dicksonii (= Dictyospermum album); none of these names refers to the Madagascar material. [Chrysalidocarpus lutescens is not based on the Bory name Hyophorbe lutescens, since Wendland states categorically that he is describing the species as distinct from Hyophorbe. Areca lutescens Bory was described from specimens from Réunion, and is a synonym of Hyophorbe indica Gaertn. Areca borbonica is an old garden name for Dictyosperma album (Bory) H. Wendl. & Drude. None of these palms conforms to the description Wendland gave for his new species, with its green leaf-sheaths with a waxy bloom combined with a clustering habit.]

With D. arenarum and D. psammophila it forms a complex that requires further study, particularly since all three taxa occur in the same area and almost in the same habitat. This complex seems close to D. baronii and D. onilahensis, to which it bears an uncanny resemblance.

We are tentatively including Chrysalidocarpus glaucescens Waxy in synonymy. This species was based on a particularly glaucous and robust plant cultivated in Trinidad. It is certainly larger in all its parts than D. lutescens but we do not think it can be anything else.


**34. DYPsis arenarum**

This species can easily be confused with D. lutescens, which grows in the same area, but has a longer petiole and fewer leaflets; the seed is also much smaller. The name means 'of the sands', since the species grows in the same area, but has a longer petiole and fewer leaflets; the seed is also much smaller. The name means 'of the sands', since the species occurs on sand near the sea.

**Distribution.** Between Soanierana-Ivongo and Vatomandy.

**Habitat.** Littoral forest near fresh water; alt. 1-15 m.
Local Names. Hirihiry (fide Perrier).

Uses. Not recorded.

Conservation Status. Critical. The distribution area is small, the numbers of this species are thought to be very low, and the vegetation type is threatened by development and fires.

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

**Synonym:**

Clustering palm in tufts of c. 5. **Stems** 5–6 m tall, 6.5 cm diam.; internodes 6–8 cm; bark dark green, on older trunks brown; wood quite hard, slightly pinkish, moist. **Leaves** c. 10 in the crown, pinnate, slightly arched distally, with opposite leaflets at an angle of 90° with each other; sheath 20–47 cm, whitish green to pale yellow-brown abaxially and distally with wax and scattered reddish scales, reddish brown and glabrous adaxially, turning into the petiole after a small sharp bend but without obvious ligules; petiole 60–72 cm, 1.8–2 x 1.5–1.6 cm proximally, 1.5 x 1.2 cm distally, channelled with sharp edges, pale brown with minute scattered scales; rachis 1.5–1.7 m, in mid-leaf 0.9–1.6 x 0.7–1.2 cm, keeled, pale brown with minute scattered scales to glabrescent; leaflets 28–30 on each side of the rachis, regular, stiff and straight, pendulous in their most distal part, the proximal 81–129 x 0.9–2.5 cm, median 67–80 x 2.2–3.6 cm (interval 4–6.5 cm), distal 16–36 x 0.9–2.1 cm, the terminal pair not or hardly (up to 0.5 cm) joined and with briefly

![Dypsis arenarum](image_url)
orders (but occasionally is branched to 2 orders).
From D. psammophila it differs in the generally larger leaves (petiole, rachis, leaflets) with many scattered scales; the much longer prophyll and stouter rachillae.


**Dypsis psammophila**

Another species close to D. lutescens, but much more slender with spindly stems towering above the coastal bush. The name means ‘sand-loving’, since this taxon is restricted to coastal white sands.

**Distribution.** E Madagascar, between Soanianarivo and Ambila-Lemaitso.

**Habitat.** Coastal forest on white sand; alt. 5 m.

**Local names.** Not recorded.

**Uses.** Not recorded.

**Conservation Status.** Critical. The distribution area is small, and over the whole area the habitat is being destroyed. Numbers are estimated at less than a hundred.

Dypsis psammophila Beentje sp. nov.

D. lutescens affinisima sed caulis gracilioribus nigris, vagina folii brevior e, foliolis br evioribus angustioribus, inflor escentia in 2 ordines ramificanti dif fert. Typus: Madagascar, Ambila-Lemaitso, Dransfield JD6495 (Holotypus K; isotypus TAN).

**Note.** Differs from D. lutescens (which occurs in the same localities, in the same habitat) in the longer petiole, the smaller number of leaflets, the longer petals and the more robust rachillae; the inflorescence branches to 2 orders, while in D. lutescens it usually branches to 3 orders (but occasionally is branched to 2 orders). From D. psammophila it differs in the generally larger leaves (petiole, rachis, leaflets) with many scattered scales; the much longer prophyll and stouter rachillae.