

The White Powder *Dypsis*: A New Species from Cultivation

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1. *Dypsis albofarinosa*: habit, nursery of Jeff Marcus, Hawaii, (plant from which the type collection, Hodel 1944, was made). (Photo by Bill Langer)

A highly ornamental *Dypsis* with powdery white crownshafts has flowered and fruited in Hawaii and has been widely distributed. It is named and described here as a new species.

Growers and collectors have long recognized that several undescribed and unnamed species of cultivated palms originating from Madagascar, mostly *Dypsis*, were not included in John Dransfield and Henk Beentje's monumental work, *The Palms of Madagascar*, when it was published in 1995. Hawaii palm grower Jeff Marcus was aware of one of these unnamed species growing in a private garden in Hilo, Hawaii and he had dubbed it *Dypsis* 'stumpy'. Marcus and others had distributed seeds and seedlings of *Dypsis* 'stumpy' and, because it had become fairly well known to palm collectors, Dransfield and Marcus described and named it *D. carlsmithii* in 2002 in honor of the late Donn Carlsmith in whose garden it was growing.

Now Marcus has brought to the attention of palm collectors another new *Dypsis*, this one growing in his own nursery near Hilo, Hawaii. It is an especially attractive and highly ornamental *Dypsis*

with clustering stems and powdery chalky white crownshafts. Because Marcus has widely distributed seeds and seedlings, it is appropriate to describe and name this handsome new species.

***Dypsis albofarinosa* Hodel & J. Marcus, sp. nov.**
D. baronii, *D. lutescenti* et *D. onilahensi* affinis sed vaginis foliorum pulveraceis cretaceo-albis petiolis longis differt. Typus: Hawaii, in horto Jeff Marcus, *Hodel 1944* (ex J. Marcus) (Holotypus K). Figs. 1–4.

Clustered, shrubby palm forming clumps to 5 × 2–3 m (Fig. 1). Stems 4–5 cm diam., ringed, internodes 6–15 cm, greenish but initially covered with chalky powdery white indument, occasionally dichotomously branching as in *Dypsis fibrosa* and *D. lutescens*. Leaves 4–6 per stem, ascending, spreading, arching, tips slightly pendulous and sometimes twisted; sheath ca. 58 cm long, lime green, densely covered with chalky powdery white indumentum (Fig. 2), tubular, with blackish scales distally briefly extending on to

2 (left). *Dypsis albofarinosa*: crownshaft covered with powdery white indument. 3 (right). *Dypsis albofarinosa*: inflorescences and infructescences. Both photos are of the plant from which the type collection, *Hodel 1944*, was made. (Photos by Bill Langer)



petiole, a slight auricle or ligule at either side of petiole at mouth; petiole ca. 75 cm long, ascending, ca. 1.3 cm diam. at base, ca. 1 cm diam. at apex, initially covered with chalky powdery white indument, concave or channeled adaxially, convex abaxially, margins sharp; rachis ascending to spreading, ca. 1.35 m long, channeled adaxially near base soon becoming flat with a sharp vertical costa extending to tip, convex abaxially and initially covered with chalky powdery white indument, arching, sometimes twisting in distal half to ca. 200°; pinnae ca. 44 per side, ca. 50 × 1.1 cm proximally, ca. 50 × 1.5 cm in midleaf, ca. 17 × 0.4 mm distally, green, arising from rachis at angle to form v-shape blade, forward-pointing, lanceolate, long acuminate, ± with long drip tip, tips drooping, 2 marginal nerves and one prominent midrib raised adaxially, 1–2 secondaries between midrib and marginals, tertiaries numerous, faint, a few dark brown medifixed ramenta on abaxial midrib. Inflorescences infrafoliar (Fig. 3), spreading in flower, drooping in fruit, branched to three orders; peduncle ca. 35–45 cm long, ca. 3.5 cm wide at base, ca. 2.5 cm wide at apex, ca. 1.5 cm thick, flattened adaxially, convex abaxially, glabrous; prophyll attached ca. 9 cm above base of peduncle, ca. 16 cm long, bicarinate, the two keels extending proximally below the point of attachment on to the peduncle as faint wings, tubular, apex bifid, lobes ca. 3.5 cm long, longitudinally striate-nerved, thick, ± coriaceous; 1st peduncular bract attached ca. 16 cm above base of peduncle, probably fallen away and not seen, only a truncated base 0.5 high remaining, this exceeded and concealed by prophyll, 2nd peduncular bract attached ca. 25 cm above base of peduncle and about 1 cm proximally of tip of prophyll, triangular, 1.5 cm long, just exceeding prophyll, 3rd peduncular bract attached ca. 27.5 cm above base of peduncle, rudimentary, 2–3 mm high; rachis 35–45 cm long, glabrous, with 14 branched and 7 unbranched 1st order branches, the proximal branches the largest and most complex with subpeduncle or base to 7 cm long, 1–1.5 cm wide, flattened adaxially, convex abaxially, subrachis to 15 cm long, 2nd order branches with base to 3.5 cm long, 5 mm diam., flattened; rachillae over 100 per inflorescence, 5–20 cm long, 3–5 mm diam., glabrous; rachis and rachilla bracts 1–3 mm high, acute. Flowers in triads of a center later-opening pistillate flanked on either side by earlier-opening staminate or in dyads of 2 staminate or a staminate and a pistillate, triads or dyads 5–7 mm distant proximally, 1–2 mm distant distally, sunken in cleft-like pits 4 mm wide, 2.5–3 mm high, 2 mm deep, subtended proximally by a thin, raised, knife-like lip, 2–3



4. *Dypsis albobarinosa*: staminate flowers (plant from which the type collection, Hodel 1944, was made). (Photo by Bill Langer)

bracteoles subtending triads or dyads in proximal side of pit, these imbricate, thin, membranous, 0.5–0.8 mm high. Staminate flowers in bud 5 × 3 mm, bullet-shaped, at anthesis 5 × 5 mm (Fig. 4); calyx cupular-triangular, 1.5 × 3 mm, sepals broadly rounded, imbricate nearly to apex, keeled, hooded, 2.25 × 2.75 mm; petals connate for 2 mm to receptacle, free for 3 × 2.75 mm, valvate, ovate, acute, faintly nerved (strongly nerved when dry); stamens 6, equaling or slightly exceeding petals, filaments 3.5 mm long, slightly enlarged at base, anthers 1.5–2 × 0.5 mm, dorsifixed; pistillode 2.5–3 × 1 mm, columnar, longitudinally angled or fluted. Pistillate flowers in bud 4 × 3 mm, broadly ovoid or dome-shaped; calyx 3 × 3 mm, sepals broadly rounded, imbricate in proximal 2 mm, keeled, hooded, 2.5–3 × 2.5 mm, margins thin, ± transparent; petals 3–3.5 × 2.5 mm, imbricate in proximal 2.5 mm, broadly ovate with short apicula, acute; staminodes 6, 0.4 mm high, tooth-

like; ovary 3 × 2 mm, bullet- to dome-shaped, stigmas not distinct at this time. Fruits 2 × 1.5 cm, ± ovoid. Seeds 17 × 14 mm, endosperm homogeneous; embryo sub-basal.

Measurements for the description were taken from non-dried, fresh or pickled material Marcus had collected and sent to Hodel. *Dypsis albofarinosa* is similar to *D. baronii*, *D. lutescens* and *D. onilahensis*, but these last three lack the powdery chalky white crownshaft and have shorter petioles and smaller fruits and seeds. *Dypsis baronii* and *D. onilahensis* also differ in their inflorescences branched only to two orders. The specific epithet is from the Latin *albus*, meaning white, and *farina*, meaning powder, and refers to the powdery white crownshafts. The white indument covering the leaf bases is of a waxy nature and is not readily apparent on dried material.

Dypsis albofarinosa is in Group 3 (page 127, species 25–46) of *Dypsis* species in *The Palms of Madagascar*. This group, consisting of solitary or clustered subcanopy palms with six equal stamens, includes such well known and popular species as *D. baronii*, *D. cabadae*, *D. lutescens*, and *D. onilahensis*. Indeed, *D. albofarinosa* keys out to *D. lutescens* in couplet f23 of Key 6 (page 143) in *The Palms of Madagascar*. Because its wild origin in Madagascar is obscure, ecological and habitat information about *Dypsis albofarinosa* is unavailable.

Dypsis albofarinosa originated in a commercial lot of seeds of *D. baronii* exported from Madagascar to Australia in the late 1980s or early 1990s. Several growers and collectors, among them Curt Butterfield of Queensland, Australia and Marcus, recognized that some of the resulting plants differed substantially from *D. baronii*. They selected out these different plants and grew them on, eventually distributing seeds and seedlings. The species has been erroneously grown under the name *D. onilahensis* in Australia and *D. baronii* and *D. baronii* var. *compacta* in Hawaii. Marcus has widely distributed this species as *Dypsis* 'white petiole.'

A striking ornamental, the white powder *Dypsis* grows vigorously to form handsome, rather open clumps of a dozen or more slender stems to five meters tall topped by elegant, gracefully arching, long-pinnate leaves. Long petioles enhance the gracefully arching effect. Most conspicuous and exceptional are the chalky powdery white crownshafts. The powdery white material also initially covers the petiole, rachis, and stems but, unlike the crownshafts, weathers away from these organs. Relatively easy to grow, *Dypsis albofarinosa* fruits abundantly in cultivation and is easily propagated from seeds. It tolerates shade to nearly full sun in Hawaii.

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