Dypsis rosea

JOHN DRANSFIELD
Herbarium, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE, UK
j.dransfield@kew.org

DONALD R. HODEL
University of California,Co-operative Extension
700 W. Main St.,
Alhambra, CA 91801 USA
drhodel@ucanr.edu

AND

JEFF MARCUS
Floribunda Palms,
P.O. Box 635,
Mountain View, HI 96771 USA
info@floribundapalms.com

1. *Dypsis rosea* growing at Floribunda Palms, Hawai'i, showing the striking pink crownshaft and grouped leaflets (Photo: JD).

The palm widely cultivated as *Neophloga* 'Pink crownshaft' is described as *Dypsis rosea*, based on material from cultivation but also known from the wild.

Dypsis rosea J. Dransf, D.R. Hodel & J. Marcus **new species.** Superficially similar to *Dypsis pinnatifrons* Mart., but differing in its much larger size, distinctive pink, newly emerged leaf sheaths, inflorescences branched to 4 rather than 3 orders and staminate flowers with 6 rather than 3 stamens, didymous rather than sagittate anthers and low conical rather than pyramidal pistillode. Type: Hawai'i, garden of J. and S. Marcus, *Hodel 2016* (Holotype K).

Single-stemmed palm to 4 m tall. Stem 8–10 cm diam., conspicuously ringed, internodes 3–5 cm long. Leaves 15–20 in the crown (Fig. 1), erect-spreading to drooping, pinnate, newly emerged leaf tinged pink, the sheaths forming a well-defined crownshaft; leaf sheath to 48 cm long, tubular, 8–13 cm diam., when opened out and flattened 30 cm wide proximally, 35 cm wide mid-sheath and abruptly narrowing to 5 cm wide at petiole, completely encircling or clasping in proximal 12 cm, obliquely open in distal up to 36 cm, when newly emerged bright pink (Fig. 2), abaxially green tinged with pink towards the margins, covered with a thin layer of whitish wax medially, elsewhere covered with scattered reddish brown to pink, ragged, irregularly shaped clusters of hairs to 0.3 mm diam. near petiole, becoming smaller and more widely spaced toward base, striate-nerved with a raised rounded ridge extending from petiole for ca. 12 cm, adaxially bright yellow; petiole 0–2 cm long, 3–5 cm wide, flattened and brownish adaxially, rounded and greenish abaxially, covered with hairs as the sheath; rachis to 2.25 m long, strongly recurved, 3–5 cm wide at base, gradually tapering to 4 mm diam. at apex, adaxially flattened and abaxially rounded in distal half, rounded at apex, green and sparsely covered with minute hairs as petiole and base; leaflets to 40 on each side of the rachis, arranged in ca. 9 groups of 2–6 leaflets each and conspicuously fanned in several planes to give a plumose appearance, groups ca. 20 cm apart proximally and ca. 10 cm apart distally, proximal leaflets nearly erect and the distal ones flat in the same plane as rachis, proximal leaflets to 25 × 4 cm, mid-rachis leaflets to 55 × 10 cm, most distal leaflets to 15 × 5 cm, slightly falcate, margins uneven and leaflets slightly cupped downwards, tips acuminate and drooping, base with swollen warty protuberance at point of attachment, up to 3 primary nerves prominent adaxially and slightly raised abaxially, secondary and tertiary nerves faint adaxially and slightly raised abaxially. Inflorescences interfoliar or infrafoliar, pendulous in flower and fruit, branched to 4 orders (Fig. 3); peduncle to 45 cm long, 6 cm wide and 1.5 cm thick at base, to 4.5 cm wide and 1.5 cm thick at apex, downward curved; prophyll to 55 cm long, 2–keeled, coriaceous, attached 10 cm distal to the peduncle base with lateral margins extending nearly to peduncle base, exceeding and concealing bases of three most proximal branches, in places densely covered with reddish brown tomentum, peduncular bract 1, attached 25 cm above peduncle base, not seen, leaving a short collar-like base 1–1.5 cm high; rachis 1.3 m long, straight to slightly curved, at base 5 cm wide and 1 cm diam., at apex 3–4 mm diam., with up to 30 1st-order branches, the most distal simple rachillae, the most proximal the largest and most highly branched, these attached at right angles to the rachis and with a rigid basal portion and downward-curved secondary rachis, to 70 cm long and with up to 20 2nd-order branches, these to 25 cm long and with up to 11 3rd-order branches, ± to 8 cm long; rachillae to 45 cm long, 1 mm diam. proximally, 0.6 mm

2. *Dypsis rosea*, detail of crown, Floribunda Palms, Hawai'i (Photo: DRH).

3. *Dypsis rosea* with a young inflorescence clearly branched to four orders, in the garden of Mr. and Mrs Piercy, Hilo, Hawai'i (Photo: JD).

diam. distally, slender, pendulous, glabrous. Staminate flowers in bud ca. 1.1 × 1.4 mm; sepals irregularly keeled, 0.8 × 1.0–1.2 mm, the outer 2 more strongly keeled and larger than the innermost; petals 1 × 1.1 mm, faintly striate; stamens 6, biseriate, the antisepalous stamens with filaments to 0.2 × 0.2 mm, the antipetalous with filaments to 0.5 × 0.2 mm,

4. *Dypsis rosea*, heavily laden with fruit, Floribunda Palms, Hawai'i (Photo: JM).

anthers didymous, 0.7 × 0.7 mm, dehiscence introrse; pistillode a low pyramidal protrusion, scarcely 0.1 mm high. Pistillate flower buds very immature, ca. 1 mm diam. Fruits (Fig. 4) 11–13 × 7–9 mm, ellipsoid. Seeds 8 × 5 mm, endosperm homogeneous.

This beautiful palm has long been recognized by growers as being a distinct species, widely called *Neophloga* 'Pink crownshaft.' Originally introduced to Australia by Rolf Kyburz, who cannot remember the precise locality where the seed originated, the palm is now

widespread and popular in cultivation. Unfortunately, it has taken rather a long time to assemble evidence for disentangling it from *D. pinnatifrons* with which it had been confused in *The Palms of Madagascar* (Dransfield & Beentje 1995). The source of the problem is the palm described initially by Jumelle and Perrier de la Bâthie (1913) as *Dypsis gracilis* var. *sambiranensis*, based on material collected by Perrier de la Bâthie from Lokobe, and later elevated to species rank as *Dypsis sambiranensis* (Jumelle 1933a). The basionym was also used in combinations with *Chrysalidocarpus* (*C. sambiranensis*) by Jumelle (1933b) and with *Adelodypsis* (*A. sambiranensis*) by Guérin (1950). We identified a palm from Marojejy illustrated in *The Palms of Madagascar* as being a robust form of *Dypsis pinnatifrons* and equated it with Jumelle and Perrier's *D. sambiranensis* that we included in synonymy with *D. pinnatifrons*. The strong similarity between *Neophloga* 'Pink crownshaft' and the robust Marojejy palm raised several questions. Were they the same species? Was this *D. pinnatifrons*? Was *D. sambiranensis*, after all, distinct from *D. pinnatifrons,* or were we dealing with yet another undescribed species?

The plant illustrated on page 338 of *The Palms of Madagascar* has a different appearance from typical *D. pinnatifrons*. Not only is it more robust but the leaf sheaths are strikingly pink-tinged when freshly exposed, and the inflorescence is branched to four orders, features shared with *Neophloga* 'Pink crownshaft.' We have no doubt now that the Marojejy palm illustrated in *The Palms of Madagascar* is the same as 'Pink crownshaft.'

All growers argued that 'Pink crownshaft' was distinct from *D. pinnatifrons*. Material is rarely complete, and our original determinations were made without having access to staminate flowers. In marked contrast to *D. pinnatifrons*, which has 3 stamens with sagittate anthers and a conical pistillode, 'Pink crownshaft' has 6 stamens with didymous anthers and a low pyramidal pistillode and is thus very different. What can we say about *D. sambiranensis*? The type specimen of this taxon (*Perrier 18742* – P) has an inflorescence branched to three orders (as in *D. pinnatifrons*), but there is little else that can be used to differentiate it. We thus maintain *D. sambiranensis* as a synonym of *D. pinnatifrons* and describe 'Pink crownshaft' as a new species, *Dypsis rosea*. We have been able to match some specimens from the wild with *D. rosea,* and it seems to be a plant of ever-wet forest in the north of the island. Unfortunately, specimens often lack the staminate flowers that would allow certain determinations, so some material may remain tentatively identified as *D. rosea* based on the inflorescence branching.

Acknowledgments

We thank Rolf Kyburz for comments on the origin of the new palm.

Literature Cited

Dransfield, J. and H.J. Beentje. 1995b. The Palms of Madagascar. Royal Botanic Gardens, Kew and the International Palm Society.

Guerin, H.P. 1950. Contribution à l'étude du fruit et de la graine des palmiers. Ann. Sci. Nat. Bot. Biol. Végétale Sér. 11. 10: 21–69.

Jumelle, H. 1933a. Nouveaux palmiers de Madagascar. Ann. Inst. Bot.-Geol. Colon. Marseille sér. 5, 1 (1): 5–29.

Jumelle, H. 1933b. Nouvelles observations sur quelques palmiers Malgaches. Ann. Inst. Bot.-Geol. Colon. Marseille sér. 5, 1 (3): 5–19.

Jumelle H. and H. Perrier de la Bâthie. 1913. Palmiers de Madagascar. Ann. Inst. Bot.-Geol. Colon. Marseille sér. 3, 1: 1–91.