

# *Chrysalidocarpus hankona*

JOHN DRANSFIELD<sup>1</sup>, JEFF MARCUS<sup>2</sup> AND WILLIAM J. BAKER<sup>1</sup>

Among the many Madagascar palms in the extraordinary collection at Floribunda Palms and Exotics at Mountain View in Hawai'i is a species of *Chrysalidocarpus* with the moniker *Dypsis* "hankona," long recognised by JM as being distinct (Figs. 1 & 2) We have been unable to match this with any described species and describe it here as new.

*Chrysalidocarpus hankona* J.Dransf, Marcus & W.J.Baker sp. nov.

In the sheaths and leaflet arrangement somewhat reminiscent of *Chrysalidocarpus hovomantsina* (Beentje) Eiserhardt & W.J.Baker but differing in the conspicuous triangular rachilla bracts unlike those of any other species in the genus; fruit spherical, the stigmatic remains forming a lateral narrow rigid beak not seen elsewhere. Type: USA. Hawai'i, Island of Hawai'i, Mountain View, Floribunda Palms, Jan 2023, W.J.Baker with J. Marcus and S. Marcus WB1478 (Holotype K).

Robust solitary tree palm ca. 8 m tall. Stem 21 cm diam., internodes brown, closely spaced.

Crownshaft swollen, ca. 1.75 m long, gray white. Leaves 11 in crown, somewhat arching, to 370 cm long, including the petiole to 70 cm long; leaf sheath c. 1.5 m long, abaxially densely covered in thick waxy grey-white indumentum and scattered black hairs; rachis densely covered with indumentum as the sheath; leaflets 151 on each side of the rachis, stiff, tending to bend at about 3/4 their length, irregularly arranged in close groups of 2 to 8, diverging at an acute angle from the rachis and held in many planes giving the whole leaf a strongly plumose appearance (Figs. 3 & 4); basal-most leaflets ca. 80 × 2.5 cm; midleaf leaflets ca. 82 × 4 cm; apical leaflets ca. 48 × 1.5 cm; leaflets somewhat discoloured, mid green adaxially, abaxially with thin white wax, both leaflet surfaces with abundant punctiform brown scale along all main veins, rammenta absent, grey floccose caducous indumentum present along main ribs and leaflet margins. Inflorescence (Figs. 5 & 6) infrapetalous, 140 cm long including peduncle 30 cm long, branched to 2 orders; prophyll leathery, 24 × 11 cm, strongly 2-keeled and with a rounded triangular beak, the surface covered in dense

<sup>1</sup>Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE, UK  
j.dransfield@kew.org, w.baker@kew.org

<sup>2</sup>Floribunda Palms, P.O. Box 635, Mountain View, Hawai'i 96771, USA  
info@floribundapalms.com



1. *Chrysalidocarpus hankona*, growing at Floribunda Palms and Exotics, Hawai'i (Photo: W.J. Baker).



2. *Chrysalidocarpus hankona*, crown with inflorescences (Photo: W.J. Baker).



3. *Chrysalidocarpus hankona*, crown with leaves (Photo: W.J. Baker).



4. *Chrysalidocarpus hankona*, leaf to show leaflet arrangement (Photo: W.J. Baker).



5. *Chrysalidocarpus hankona*, young infructescence (Photo: W.J. Baker).

dark scales and white wax; peduncular bract 50 × 25 cm, leathery, with a beak ca. 6 × 2 cm, the abaxial surface with abundant scattered dark brown scales and abundant white wax; rachis oval in cross section, near the base 6 × 2.5 cm, with ca. 50 primary branches, the branches somewhat distorted, the longest (at the base) to 85 cm long; rachillae 5–31 cm long, 1–5 mm diam., glabrous, green, with thin white wax, bearing very conspicuous, thick, rigid, narrow triangular acuminate rachilla bracts (Fig. 7), those at the base of the largest rachillae 25 × 2 mm but most bracts ca. 5 × 2 mm or smaller, the bracts somewhat curved, adaxially channelled, glabrous. Staminate flower with sepals 3, 2 × 1 mm; petals 3, 4.5 × 1.5 mm; stamens 6, filaments 2 × 0.1 mm, anthers sagittate 1.2 × 0.5 mm; pistillode narrow pyramidal, 1.5 × 1 mm. Pistillate sepals in fruiting stage 4 × 2.5 mm; pistillate petals in fruiting stage 7 × 6 mm, young developing ovary with a pronounced lateral beak bearing stigmatic remains. Fruit spherical, shiny green to brown, 15 mm diam., the stigmatic remains lateral to subbasal, ± prominent in a conspicuous beak to 3.5 × 1 mm (Figs. 7 & 8); epicarp smooth, glabrous; mesocarp ca. 1 mm thick; endocarp thin. Seed spherical, 11 mm diam.; endosperm homogeneous; embryo lateral.

Specimens examined: Type: USA. Hawai'i, Island of Hawai'i, Mountain View, Floribunda Palms, Jan 2023, W.J.Baker with J. Marcus and S. Marcus WB1475 (Holotype K); 15 Feb 2015, J. Dransfield with J. Marcus and S. Dransfield JD7804 (K).

It has not been possible to match this palm with any described species (Dransfield & Beentje 1995). The rigid, persistent triangular rachilla bracts diverging at right angles from the rachillae give a very distinctive appearance to the rachillae, unlike any other species of *Chrysalidocarpus* (but note that the illustration in *Flore de Madagascar* of *Neodypsis compactus* [= *Chrysalidocarpus baronii*] shows somewhat similar conspicuous bracts) (Jumelle & Perrier 1945). Furthermore, the stigmatic remains on the fruit form a slender rigid lateral beak, unlike that of any other species in the genus.

Seed of *Chrysalidocarpus hankona* was acquired by JM in the 1990s from the late Inge Hoffmann, who operated a small commercial palm seed bank. She dealt exclusively with the late Alfred Razafindrasira in Madagascar. *Chrysalidocarpus hankona* is a rather slow-growing palm when cultivated in pots but once in the ground develops rapidly.



6. *Chrysalidocarpus hankona*, JM holds whole inflorescence (Photo: Suchin Marcus).



7 (top). *Chrysalidocarpus hankona*, detail of rachilla showing conspicuous pointed rachilla bracts and developing fruit with prominent stigmatic beaks. 8 (bottom). Close-up of immature fruit showing prominent beaks (Photos: W.J. Baker)

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