

Palm novelties continue to be discovered in Madagascar. Some, like the one described here, are local endemics that have come to light when botanists have explored areas previously not thoroughly surveyed. There are also several really interesting undescribed palms that are currently known only from seeds or seedlings in the horticultural trade, and not yet represented by complete herbarium material collected in the wild.

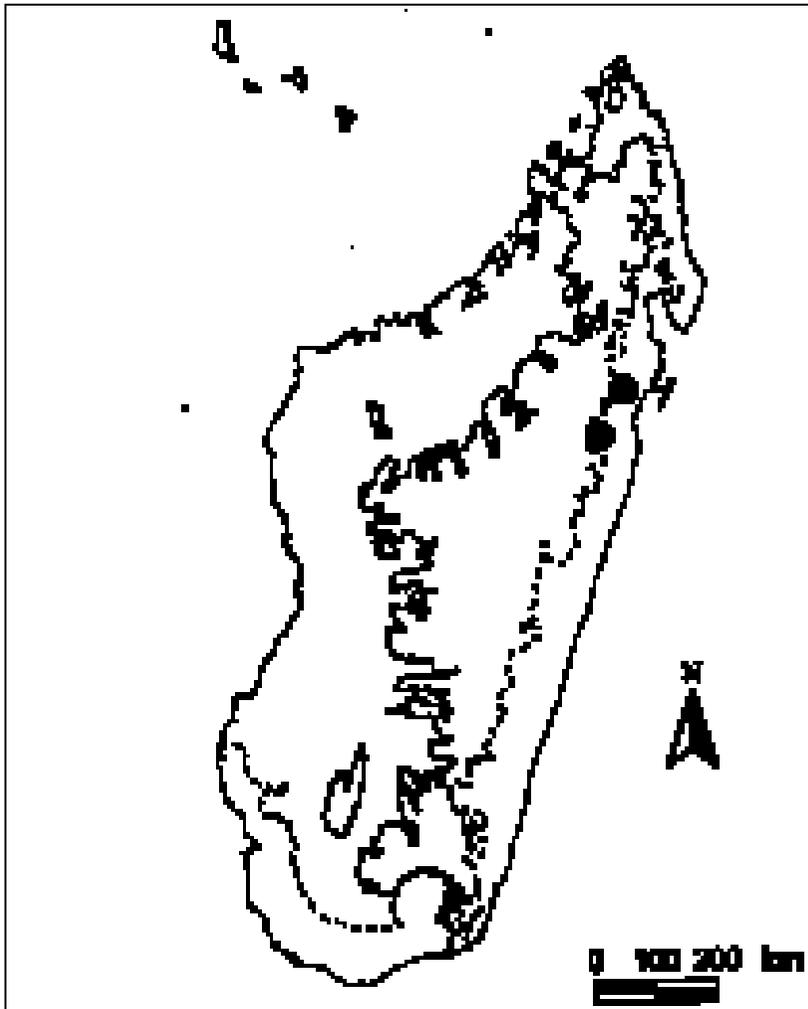
The subject of this paper is an astonishing new species of *Dypsis* with unusual inflorescences unlike those of any other palm in Madagascar. The species is named for Dan Turk, environmental officer of the Fiangonana Jesosy Madagasikara, who recognised it to be undescribed when he collected it on an isolated hill still covered in forest to the northeast of the Betampona reserve in Eastern Madagascar. I examined this specimen in Antananarivo but it has yet to arrive in Kew. The species was also collected by Anja Byg in Zahamena, during fieldwork funded by the International Palm Society. She too was unable to key it out in Palms of Madagascar (Dransfield & Beentje 1995) and suspected it to be undescribed. Finally in 1999 Bill Baker and I discovered it to be locally common in the southern margin of the Ambatovaky reserve and in forest fragments between Ambatovaky and Soanierana Ivongo. It thus has a distribution in upland forest on the eastern escarpment of Madagascar, northwest of Toamasina (Fig. 2).

***Dypsis turkii*** J. Dransf. sp. nov., inter species floribus staminatis triandris staminibus antesepalis inflorescentiis longissimis filiformibus floribus remotis distinctissima. Typus: Madagascar, Toamasina, Soanierana-Ivongo, Ambatovaky Reserve, Baker *et al.* 1013 (Holotypus K; isotypi TAN, MO, P, NY).

Slender, solitary, short-stemmed litter-trapping palm. Stem up to 1 m tall, usually less, often partially buried in leaf-litter and hence the palm appearing acaulescent, c. 8–15 mm diam., internodes 4–20 mm long. Leaves 7–9 in crown, apparently marcescent; sheaths yellow-green, with reddish margins when young, drying rich red-brown, 8–9 cm long, open for  $\pm$  their entire length, tubular in basal 2–3 cm, striate, abaxially bearing numerous reddish brown fimbriate-margined scales distally, scales very sparse proximally, two rounded auricles present, one on each side of the petiole, to 1.5  $\times$  1.5 mm; petiole absent, very short or to 4 cm long, 3.5  $\times$  2 mm in cross section; leaf blade entire-bifid, 29–65 cm long, with 10–14 adaxial ribs diverging at an angle of about 25° from the rachis, the blade divided to one half to two thirds, ca. 9–12 cm wide just below the sinus,

the two apical segments somewhat cucullate at the tips and shallowly toothed, the teeth corresponding to the main folds of the blade, rachis 10–26 cm long bearing scattered reddish brown scales, lamina bearing very sparse, scattered minute grey or reddish scales adaxially, abaxially with scattered punctiform reddish scales along the main ribs. Inflorescences interfoliar, very slender, exceeding the leaves, often greatly so, 72–150 cm long, branching to two orders, all branches diverging at an acute angle of about 20–25°; peduncle 28–ca. 70 cm long, ca. 1.5–2 mm diam.; prophyll tightly sheathing the base of the peduncle, inserted ca. 4 cm above the base, to ca. 8–10 cm long, 4 mm wide, striate and bearing scattered reddish brown scales; peduncular bract similar to the prophyll, ca. 24–26 cm long; rachis 40–80 cm long; rachis bracts triangular, ca. 3  $\times$  1.5 mm; first order branches ca. 6–8, distant, the proximal 2–3 branches branched to the second order, the distal unbranched, each with a conspicuous basal pulvinus and a long basal section devoid of branches or flowers; rachillae very slender, 4–8 cm long, ca. 0.75 mm diam, drying striate, bearing scattered brown scales; triads ca. 5 mm distant near the base of the floriferous portion of the rachilla, ca. 2 mm distant distally; rachilla bracts minute. Staminate flowers globose, ca. 1.5 mm diam.; sepals ca. 0.6  $\times$  0.8 mm, imbricate, broadly triangular with rounded bases, irregularly keeled and apiculate, faintly striate; petals triangular valvate, c. 1.2  $\times$  0.8 mm, striate, glabrous; stamens 3, antesepalous, staminal tube 0.6 mm high, ca. 0.6 mm wide, free portion of filaments ca. 0.2 mm high, ca. 0.4 mm wide, staminodes absent, anthers didymous mostly held within the staminal tube, ca. 0.5 mm high, 0.4 mm wide at base; pistillode minute, 3-lobed. Pistillate flowers globose 2.5  $\times$  2.5 mm; sepals 1  $\times$  1.5 mm, striate, irregularly emarginate and keeled; petals broad triangular 2  $\times$  1.8 mm, imbricate with triangular valvate tips, very thick and fleshy, glabrous; staminodes 6, irregular, tooth-like, sometimes connate laterally, c. 0.4  $\times$  0.2 mm; ovary eccentrically spherical, 1.5  $\times$  2 mm, stigmas 3, eccentrically subapical, 0.6  $\times$  0.1 mm; ovule laterally attached. Fruit ripening glistening bright red, broadly ellipsoid 14  $\times$  8 mm, stigmatic remains subbasal; epicarp smooth; mesocarp 4 mm thick; endocarp striate. Seed ellipsoid, 11  $\times$  4 mm, homogeneous, embryo lateral towards the base. (Fig. 3.)

**SPECIMENS EXAMINED.** Madagascar, Toamasina, Soanierana-Ivongo, Ambatovaky Reserve, ca. 2.2 km southwest of Amberomanitra, near Imangna River, 16°51'.45S, 49°16'.01E, 10 Nov 99, Baker *et al.* 1013 (Holotypus K; isotypes TAN, MO, P, NY);



2. Map showing distribution of *Dypsis turkii*.

Fenoarivo Atsinanana, Vavatenina, ca. 10 km northwest of Manakambahiny, buffer zone of Zahamena Reserve, 17° 32'S, 48° 55'E, 20 Oct 98, *Byg 19* (AAU, K, TAN).

VERNACULAR NAME: Sinkiaramboalavo.

HABITAT. Occurring in rain forest on slopes and near valley bottoms on quartzite, at elevations of 400–800 m above sea level, locally common in the undergrowth.

NOTES. The inflorescences of this species are unlike those of any other taxon in the genus (Figs. 4, 5). The palm is generally short-stemmed, occasionally almost acaulescent. The leaves, usually lacking a long, well-defined petiole tend to trap leaf litter, so that the leaf bases are sometimes entirely obscured. The inflorescences emerge from the crown and arch out between the leaf bases and on to the forest floor; the extremely slender rachillae may be presented over the ground or lie on the surface among the leaf litter. The

flowers as in so many taxa of *Dypsis* with three-staminate flowers where the anthers are rounded, are extremely small but, unusually, are held on slender, or almost thread-like rachillae. Only in *D. remotiflora* are the rachillae so slender, but here the inflorescence is short, little if any longer than the leaves and quite different from the very long inflorescences of this new species.

#### Acknowledgments

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#### LITERATURE CITED

DRANSFIELD, J. AND H.J. BEENTJE. 1995. The Palms of Madagascar. The Royal Botanic Gardens Kew and the International Palm Society.



4. *Dypsis turkii*, showing the long thread-like inflorescences.



5. *Dypsis turkii*, detail of infructescence.