Stamens, however, have not yet developed. Boivin 1709 consists of two leaves while Boivin 1709′ consists of a first order branching system of an inflorescence, still young, but with more floral details available. Within the petals are three antesealous stamens; these have widely divergent anther thecae that seem to be pendulous from the tip of the filament, a most unusual stamen form, though not unique to this taxon (see also D. lokohokensis and D. fasciculata). The material is so incomplete that we cannot be certain that the leaves in Boivin 1709 are from the same species as the inflorescence in Boivin 1709′. The Du Petit Thouars collection seems to be conspecific with the Boivin leaf collections. A fourth collection, probably made by Boivin, is annotated “talanoua” but consists of leaves only, matching those of the other collections.

The leaves of the three collections described above are relatively small; they have distinctive broad multifold basal and apical segments and single fold mid-leaf segments. There is a long petiole and at its base a short entire ligule. It must be said that these leaves are reminiscent of the plant previously named Vonitra fibrosa that has long been called Vonitra thouarsiana, so this may go some way to explain why Beccari based his Vonitra thouarsiana on Baillon’s name (while preparing his description from a collection made by the Rev. Baron). Boivin 1709′ also carries the name “vounouthe” - i.e., vonitra, the consistently applied vernacular name for this important and common palm. Yet there are only three stamens in Boivin 1709′, as described by Baillon and clearly evident in the specimen, while in Beccari’s new genus Vonitra there are six biserrate stamens. It is most surprising that Beccari did not mention this anomaly. Could it be that the four early collections represent more than one taxon? The leaves could be interpreted as juvenile D. fibrosa leaves. Only in D. fasciculata do mchilla and stamen form approach those of Boivin 1709′, but this species has inflorescences branched to two orders; the inflorescence fragment in Boivin 1709′ could represent the whole branched portion of an inflorescence branched to two orders, or, more likely (because of “rachis” is flattened on one side) a whole first order branching system of an inflorescence branched to three orders. It is possible that the inflorescence in the Du Petit Thouars collection represents a fragment of a very young D. fibrosa inflorescence, but the stamens that would allow identification have not yet developed.

Further collecting on Île Sainte Marie may sort out the problems, but at present we have a species, Dypsis thouarsiana, that appears to have been typified by Baillon on the Du Petit Thouars collection (the Boivin collections are mentioned as a variety) that are too young to show the diagnostic three stamens described by Baillon. The two numbered Boivin collections may not even belong to the same taxon, as one consists of leaves while the other of inflorescence fragments, and these are clearly not conspecific with Dypsis fibrosa.

**DISTRIBUTION.** Marojejy, Masoala and Mananara Avaratra.

**HABITAT.** Moist forest, on steep slopes, near waterfalls on rocks or in valley bottoms; 150–800 m.

**LOCAL NAMES.** Besofina (Betsimisaraka, meaning big ears, because of the large sheath auricles); Menamosona (Betsimisaraka, meaning red back, because of the red tomentum on the sheath and bracts), Kase.

**USES.** Good palm-heart.

**CONSERVATION STATUS.** Vulnerable. Despite its fairly large distribution area, this species is not common in any of its sites; the fact that the palm-heart is eaten is a contributing factor to its status.

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

**SYNONYMS:**


**110. DYPsis perrieri**

D. perrieri is a rather massive stocky, litter-trapping palm of the lower strata of rain forest. In habit it is reminiscent of other litter-trapping species such as Masoala madagascariensis, Ravenea albicans, and Dypsis marojejyi, having a rather short stem and large leaves that do not fall neatly from the stem. It is easily distinguished when in flower because of the large torpedo-like peduncular bract, densely covered in thick red tomentum. In shape this bract is very reminiscent of that of Beccariophoenix madagascariensis, but the flowers, fruit and thick tomentum are very different. Found on Marojejy and around the bay of Antongil, this species has recently been found near Antanambe, south of Mananara Avaratra. The name refers to the collector of the type, and of many other exciting palms, Joseph Marie Henry Alfred Perrier de la Bâthie (1873–1958), whose many excellent collections have given the world a wealth of information on many common, rare, and several now possibly extinct species.

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**SYNONYMS:**


Massive, squat solitary palm. **Trunk** 2–8 m high, 20–30 cm diam., near the crown c. 12 cm diam. Trunk with marcescent leaves and persistent bases of leaf sheaths; internodes c. 4 cm; nodal scars dotted with fiber remains, c. 2 cm wide. Base of crown litter-accumulating. **Leaves** 12–20 in the crown, porrect; sheath c. 1 m long, abaxially densely reddish-tomentose to floccose, turning fibrous and desintegrating with age, with auricles 3-12 cm long; apparent petiole 40-160 cm long, proximally c. 5 x 2.5 cm diam., distally 3-3.5 x 2-2.7 cm, the margins often with a slight wing formed by the rem of the proximal leaflets, deeply channelled with sharp margins, abaxially densely reddish-tomentose to reddish-brown scaly, glabrescent, dark green under the tomentum; rachis c. 3-3.5 m long, proximally channelled, in mid-leaf 1.3-1.8 x 2.3 cm diam., distally keeled, with patches of pale white, pale brown or dark red tomentum of peltate laciniate scales; leaflets 45-50 on each side of the rachis, regular, rigid and plicate, adaxially dark green, abaxially bright green, the proximal 80-148 x 1.2-3.4 cm, the most proximal ones inserted at different levels, median 69-107 x 3-5.5 cm (interval [0.5 -] 4-6.5 cm), distal 21-60 x 1-3 cm, the distal pair joined for 3-6 cm, main veins 3-7, apices acuminate and unequally bifid, with scattered minute scales on the minor veins, occasionally with large...
brown or red ramenta 5–15 mm long on the abaxial midrib, once (in the type) with dense silvery hairs on the abaxial midrib.

**Inflorescence** interfoliar to infrfoliar, branched to 2 or 3 orders, spreading to pendulous, to 2 x 1.5 m; peduncle 57–100 cm long, proximally 8–9 x 2.5 cm, distally c. 5.5 x 3.5 cm, glabrous in young fruit; prophyll erect, 40–60 cm long, c. 5.5 cm wide, borne at c. 3 cm above the base of the peduncle, rufous brown, sometimes rotting away early; peduncular bract inserted at c. 8 cm from the base of the peduncle, circumscissile and carried upwards by the lengthening inflorescence, woody, 80–150 cm long, 3.5–4 cm diam., with a 9–10 cm long beak, densely reddish tomentose, splitting over its whole length except for the distal 16–20 cm; non-tubular peduncular bracts in the distal part of the peduncle, 4–5 x 2 cm; rachis 30–40 cm long, glabrous, with 12–25 branched and 10 unbranched first order branches, the proximal of these with a rachis to 36 cm long, up to 2.2 x 1.1 cm diam., proximally, and with up to 16 second order branches; rachille spreading or pendulous, 15–50 cm long and 2–6 mm diam.; triads distant, in slight pits, with a narrow, obtuse nchilla bract. **Staminate flowers** cream, with sepals 1.5–3 x 1.6–3.2 mm, the outermost smallest, proximally gibbous, keeled, ovate, rounded, ciliolate; petals 4–5.2 x 2.8–3.8 mm, elliptic, acute; stamens 6, 2-seriate, the antepetalous more adaxial and inserted slightly higher up, filaments 1.3–2 mm long with slightly triangular bases, anthers 2.3–3.5 x 1–1.6 mm, dorsifixed, versatile, the locules slightly divergent proximally and obtuse or apiculate, slightly unequal, with a wide (~0.8 mm) dark-coloured connective; pistillode conical, 1–1.4 x 0.5–1.1 mm. **Pistillate flowers** with sepals 2.2–4 x 4.5–6.5 mm, concave and enveloping to c. 230°, broadly elliptic, rounded with a fleshy, solid abaxial bulge, ciliolate; petals 5–7.5 x 5–8 mm, concave and enveloping through to c. 270°, in fruit 9.7–11 mm wide, with membranous margins, broadly elliptic; staminodes 6, flat, triangular, obtuse, 0.8–1.4 mm high; gynoecium asymmetrical, 3.5–4.5 mm x 2.8–4.5 mm. **Fruit** ellipsoid, dull greenish brown, 15–19 x 12–16 mm, rounded or shortly stalked at the base, rounded at the apex; mesocarp up to 2 mm thick; endocarp very fibrous, with few anastomizations. **Seed** slightly obovoid or ellipsoid, 14–16 x 11–12 mm, pointed at the base, rounded at the apex, with a subbasal depression corresponding to the embryo; endosperm ruminate, with the intrusions dense, irregular, up to 1.3 mm thick but usually c. 0.3 mm thick and up to 5.5 mm deep.

**Note.** Jumelle (1928b) described this as a new genus, based on the sagittate anthers and the very fibrous endocarp of the fruit. On examining the type the first character is not correct – the locules are parallel. The second character is more difficult to evaluate, since there are no fruits present in the type.

The types of C. auriculatus and C. ruber are clearly conspecific; the fruit mentioned in the protologue of Chrysalidocarpus auriculatus are of doubtful provenance – they have homogeneous endosperm, so they are unlikely to belong to D. perrieri. These fruits were the reason why the taxon was included in Chrysalidocarpus, but they are not present on the P sheets of this number.

**Specimens seen.** Andapa: Marojejy, Dec. 1972 (bud), Guillaumet 4202 (TAN); idem, NW of Mandena, Oct. 1988 (fl.), Miller et al. 3435 (K, MO, P, TAN); idem, N of Mandena, Nov. 1989 (fl., fr.), Dransfield et al. JD6749 (K, P, TAN), Perrier 11942 (P, type of C. auriculatus); Masoala Peninsula, without date (fl.), Perrier 11941 (P, type of Chrysalidocarpus ruber). Maroantsetra: Antalavia, Feb. 1988 (bud), Dransfield et al. JD6475 (K, P, TAN); between Maroantsetra and Mananam, without date (fl.), Perrier 11941 (P, type of Chrysalidocarpus ruber). Maroantsetra: Antalavia, Feb. 1988 (bud), Dransfield et al. JD6745 (K, P, TAN); between Maroantsetra and Mananam, without date (fl.), Perrier 11946 (Holotype P).

**Sight records.** Mananara Avaratra: Antanambe (Dransfield & Beentje).

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**Dypsis perrieri.** Detail of crown with inflorescence enclosed by the red-hairy peduncular bract and infructescence in almost mature fruit, Marojejy (Dransfield et al. JD6749).