

**108. DYP SIS LOKOHOENSIS**

A slender palmlet of the undergrowth of montane forest. Because of its inflorescence structure and staminate flower size and shape, this species has the general appearance of members of the genus that were previously included in *Neophloga*, and had previously been misidentified as *D. (Neophloga) lutea* and *Neophloga lanceolata*. However, there are only three stamens in the staminate flower, and they are of an extraordinary form. The slender filaments end in a bifid connective, each arm reflexed and bearing a

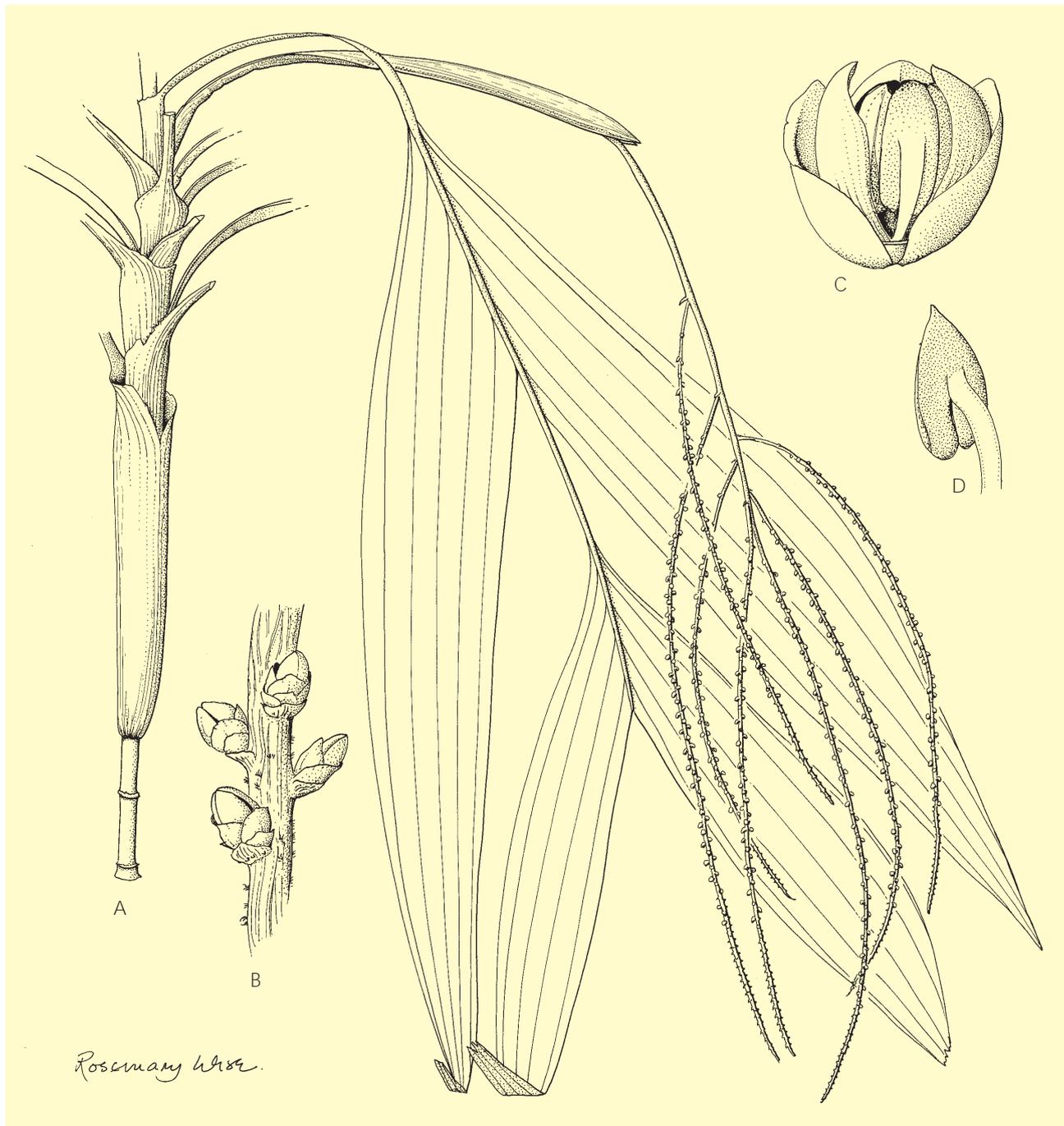
single short pendulous anther. The overall form thus approaches that of the stamens of some members of the New World palm genus *Geonoma* (Tribe *Geomeae*). The Lokoho River, after which the palm is named, drains the whole southern half of the massif of Marojejy.

**DISTRIBUTION.** Madagascar, only known from Marojejy.

**HABITAT.** Humid lowland and lower montane rain forest on steep slopes; 400–1200 m.

**LOCAL NAMES.** Not recorded.

**USES.** Not recorded.



**Dypsis lokohoensis.** A crown  $\times 3/5$ ; B detail of rachilla  $\times 6$ ; C open staminate flower  $\times 15$ ; D stamen  $\times 15$ . All from *Dransfield et al.* JD6759. Drawn by Rosemary Wise.

**CONSERVATION STATUS.** Vulnerable. Only occurs in a restricted area, though there is some protection.

**Dypsis lokohoensis** *J. Dransf. sp. nov.*

*Palma gracilis*, foliis integro-bifidis vel pinnatis, inflorescentia 1- (rare 2) ramosa, rachillis paucis (4–9), pendulis, floribus staminatis triandris, staminibus antesepalis, connectivo valde bifido antheris pendulis distinctissima. Typus: Madagascar, Andapa, Marojejy, *Dransfield et al.* JD6759 (Holotypus K; isotypi P, TAN).

Slender clustering undergrowth palm. **STEM** to 3 m tall, 6–15 mm diam., internodes 5–14 mm long with scattered caducous brown scales, nodal scars prominent. **LEAVES** 4–9 in crown; sheaths 6–12 cm long, c. 7–15 mm diam., longitudinally striate and bearing scattered caducous dark brown scales, sheath lacking auricles; petiole 2–9 cm long, c. 1–3 mm diam., ± triangular in cross section, bearing sparse scattered dark brown scales; lamina entire bifid or divided into 3–9 subregular to grouped leaflets on each side of the rachis, rachis (or costa) 8–33 cm long, sparsely dark brown scaly; entire bifid lamina to 20–24 cm, divided to 65%, with lobes 14–15 cm long, 3.9–4.4 cm wide at widest point, tapering gradually to shallowly lobed tips, the apical cleft to 13 cm deep; pinnate leaf with leaflets subregular or grouped irregularly, somewhat sigmoid, the basal 4–30 × 0.3–4.5 cm, the subapical to 14–25 × 2–4 cm, the apical pair 10–17 × 1.8–6 cm, apically shallowly lobed; both lamina surfaces bearing minute brown punctiform scales along main ribs and veins. **INFLORESCENCES** interfoliar at first, apparently becoming infrafoliar, ± porrect, branching to 1 (or very rarely 2) orders; peduncle 12–32 cm long, 1–2 mm diam., sparsely scaly; prophyll 7–25 × 0.4–0.7 cm, apically irregularly lacinate, abaxially sparsely scaly; peduncular bract 18–20 × 0.5–0.7 cm, deciduous; rachis 3–6 cm, densely scaly when young; rachillae 4–9, somewhat curved or flexuous, 7–23 cm, densely scaly when young; triads borne ± superficially, c. 1 mm distant, rachilla bracts minute. **STAMINATE FLOWERS** c. 2 × 2 mm; sepals rounded triangular, abaxially keeled, c. 1 × 1 mm; petals 2 × 1.3 mm, ovate-oblong, with triangular tips, striate; stamens 3, antesepalous, filaments elongating to 2 × 0.3 mm, pale, connectives tanniferous, dark, bifid with pendulous arms to 0.5 mm, anthers pendulous and divergent on the connective arms, 0.4 × 0.2 mm; staminodes absent; pistillode conical, c. 0.5 mm high.



**PISTILLATE FLOWERS** ovoid, c. 1.8 × 1.6 mm; sepals 1.1 × 0.9 mm, imbricate, rounded; petals 1.2 × 0.8 mm, imbricate basally, triangular valvate distally; staminodes 3, minute, dentiform; ovary 1.1 × 0.4 mm, ellipsoid. **FRUIT** only known in very immature state.

**NOTE.** The two specimens that make up the Humbert collection differ greatly in leaf dissection, yet they both bear the same collector's number. In one the leaf blade is entire bifid, in the other it is divided into irregularly arranged leaflets. However, details of indument and texture are identical. *Cours* 3243 from Ambatosoratra, is more robust; it has a pinnate leaf with subregular leaflets. Ambatosoratra lies at 14° 34' S 49° 44' E on the eastern slopes of the Marojejy Massif. The most recent collections have all been made on the eastern slopes of Marojejy, and vary in size and leaf dissection. *Dransfield et al.* JD6396 (K, TAN) from near Ambanizana on the Masoala Peninsula keys to this species but does not have the same texture; unfortunately, the available material does not have flowers and it is not possible to match the specimen with more certainty.

**SPECIMENS SEEN.** Andapa: Marojejy, trail to Marojejy Est from Mandena, above Camp 2, Nov. 1989 (fl.), *Dransfield et al.* JD6751 (K, TAN); (fl.), JD6752 (K, TAN); (fl.), JD6759 (Holotype K; isotypes P, TAN); Valley of the Lokoho, Mt. Ambodilaitra, north of Andranomiforitra and Belambo, March 1949 (fl.), *Humbert* 23275 (P); Ambatosoratra, Jan. 1949 (fl.), *Cours* 3243 (K, P); Col d'Andapa, Route de Sambava, April 1970 (fl.), *Bosser* 20114 (K, P).

## 109. DYPISIS THOUARSIANA

### INSUFFICIENTLY KNOWN SPECIES

**Dypsis thouarsiana** *Baill.*

Bull. Soc. Linn. Paris 2:1163 (1894). Type: Madagascar, *Du Petit Thouars* s.n. (P).

The interpretation of the name *Dypsis thouarsiana* has been one of the most intriguing problems in Madagascar palm nomenclature. The name was published by Baillon (1894a) in his paper entitled "Les palmiers malgaches à petites fleurs". Loosely translated, his protologue reads "The species that we name *D. thouarsiana* takes after the preceding one (*D. lantzeana*) in the deep division of the leaves and by the confluence of the terminal segments, despite the lower ones being separate; but it is also equally reminiscent of *D. pinnatifrons* in the narrow rigid elongate segments, nerved like the leaves of *Gladiolus*, linear lanceolate and nearly half a metre long. In the plant of Du Petit Thouars and in a variety which we attribute to the same species, called Vounouthre or Talanouc by the natives of northeast Madagascar (*Boivin* 1709, 1709<sup>2</sup>, Sainte Marie, Tafondrou), the inflorescence has a short stocky compressed peduncle, and long divisions which are two to four decimetres, rather thick, rigid and carrying three-flowered glomerules. In the male flowers, the only ones that are well developed, there are only three stamens and obtuse concave strongly imbricate sepals, the base of which is prolonged on the outside in a sort of solid obtuse spur, equalling a fifth of the total height of the sepal and running into a short obtuse keel along the dorsal median line".

Thus three collections are cited in this protologue. The collection made by Du Petit Thouars, without locality, consists of leaf fragments and what appears to be a first order branching system of a very young inflorescence; floral bracteoles have developed, and three imbricate sepals are partially developed, within which are three very small valvate structures which we interpret as petals.