

A New Species and Combinations in Malagasy *Chrysophyllum* L. (Sapotaceae)

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ABSTRACT. The Malagasy taxa of Sapotaceae formerly placed in the genera *Austrogambeya*, *Donella*, and *Gambeya* are provided with new combinations in the genus *Chrysophyllum*. A new species of *Chrysophyllum* from Madagascar is described with leaf venation intermediate between *Austrogambeya* and *Gambeya*, and *Donella*, and thus further confirms the merging of these genera with *Chrysophyllum*.

RÉSUMÉ. Nous proposons des nouvelles combinaisons dans le genre *Chrysophyllum* (Sapotaceae) pour les taxons malgaches précédemment placés dans les genres *Austrogambeya*, *Donella*, et *Gambeya*. Une nouvelle espèce de *Chrysophyllum* de Madagascar est décrite. Sa nervation est intermédiaire entre celle des *Austrogambeya* et *Gambeya* et celle de *Donella* et confirme le regroupement de ces genres sous *Chrysophyllum*.

The division of *Chrysophyllum* L. into segregate genera, proposed initially by Pierre (1890–1891) and Baillon (1892), and adopted and expanded later by Aubréville (1961, 1974), is based upon vegetative characters, especially on leaf venation, and to a lesser extent wood anatomy. However, flowers, fruits, and seeds provide no evidence to support such a division. As Aubréville (1974) himself stated: "Les fleurs des espèces de *Donella* ne se distinguent pratiquement pas les unes des autres, ni même de celles des *Gambeya*. Il en est de même des fruits et des graines chez les espèces malgaches."

In agreement with the recent generic monograph of Sapotaceae by Pennington (1991), we prefer to return to a generic concept closer to that of Engler (1904), who considered the vegetative differences relevant only at the sectional level. Therefore, we propose the following new combinations in *Chrysophyllum* to accommodate the Malagasy species previously described by Lecomte and Aubréville in the genera *Austrogambeya* Aubréville & Pellegrin, *Donella* Pierre ex Baillon, and *Gambeya* Pierre.

Furthermore, an undescribed large tree from basaltic formations in the northeastern rainforests of Madagascar exhibits leaf venation intermediate between *Austrogambeya* and *Gambeya*, and *Donella*, and thus provides further evidence for merging those genera with *Chrysophyllum*. At the specific level, recent collections have shown that some of the taxa recognized by Aubréville (1974) cannot be maintained. Therefore, the following new synonymy is also proposed.

SYNOPSIS OF *CHRYSOPHYLLUM* L. IN THE FLORE DE MADAGASCAR ET DES COMORES AREA

Chrysophyllum ambrense (Aubréville) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Donella ambrensis* Aubréville, Fl. Madag. 164: 118, pl. 27: 3–4. 1974. TYPE: Madagascar. Antsiranana: Centre (Nord): Montagne d'Ambre, *Service Forestier 11277* (holotype, P).

Chrysophyllum analalavense (Aubréville) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Donella analalavensis* Aubréville, Fl. Madag. 164: 117, pl. 27: 7–8. 1974. TYPE: Madagascar. Mahajanga: environs d'Analalava, *Perrier de la Bâthie 12309* (holotype, P).

Chrysophyllum boivinianum (Pierre) Baehni, Boissiera 11: 76. 1965.

Gambeya boiviniana Pierre var. *lavanchiana* Aubréville, syn. nov., Fl. Madag. 164: 110. 1974. TYPE: Comores. Anjouan, *Lavanchie s.n.* (holotype, P).

Chrysophyllum capuronii G. E. Schatz & L. Gautier, sp. nov. TYPE: Madagascar. Toamasina: Nosy Mangabe Special Reserve, a 520 ha island in the Bay of Antongil, 5 km S of Maroantsetra, 15°30'S, 49°46'E, 0–330 m, 9 Jan. 1989 (fr), G. E. Schatz & J. S. Miller 2555 (holotype, MO; isotypes, K, P, PRE, TAN). Figure 1.

Ab aliis Malagasis speciebus *Chrysophylli* foliis anguste



Figure 1. *Chrysophyllum capuronii* G. E. Schatz & L. Gautier, sp. nov. Photograph of type specimen at MO (G. E. Schatz & J. S. Miller 2555).

ellipticis ad anguste oblonga, omnino glabris, basibus asymmetricis cuneatis ad obtusas, marginibus undulatis, apicibus acuminatis, nervis secundariis 8–12 utrinque, tertiariis reticulatis differt.

Tree to 30 m tall exuding very thick, caustic white latex from branches and especially fruits. Petioles slightly canaliculate, 0.9–1.6 cm long, glabrous; leaf blades narrowly elliptic to narrowly ob-

long, 7–14.5(–20.5) × 2.5–4.5(–6.5) cm, membranaceous to chartaceous, glabrous, glossy, bases asymmetrical, cuneate to acute to obtuse and somewhat decurrent along petiole, margins undulate, apices acuminate with an acumen 1–3 cm long, midribs flattened to slightly concave toward the base adaxially, distinctly elevated below, venation weakly brochidodromous with 8–12 major second-

ary veins on each side plus occasional minor intersecondaries, these elevated both adaxially and abaxially, tertiary venation reticulate, slightly elevated both adaxially and abaxially. Flowers unknown. Fruits five-seeded berries, spheroid, 3.5–4.5 cm diam., greenish yellow at maturity, mesocarp orange-red, pedicels 0.5–0.8 cm long, 0.3–0.4 cm diam., seeds 2 cm long, 1.4 cm wide, 0.7 cm thick, light brown, shiny.

Paratypes. MADAGASCAR. **Antsiranana:** Table basaltique d'Ambanitzana, près d'Andrapengy (au N d'Antalaha), 11 Apr. 1967 (st), *Service Forestier (Capuron) 27738bis* (P). **Toamasina:** Nosy Mangabe, Apr. 1990 (st), *B. Carlson 197* (MO).

Chrysophyllum delphinense (Aubréville) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Donella delphinensis* Aubréville, *Fl. Madag.* 164: 120, pl. 27: 1–2. 1974. TYPE: Madagascar. Toliara: forêt de Mandena, *Service Forestier 7850* (holotype, P).

Chrysophyllum fenerivense (Aubréville) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Donella fenerivensis* Aubréville, *Fl. Madag.* 164: 116, pl. 26: 8–9. 1974. TYPE: Madagascar. Toamasina: Tampolo, *Service Forestier 13072* (holotype, P).

Chrysophyllum guerelianum (Aubréville) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Austrogambeya guereliana* Aubréville, *Fl. Madag.* 164: 122, pl. 28. 1974. TYPE: Madagascar. Antsiranana: Ouest: Montagne des Français, *Service Forestier 12794* (holotype, P).

Chrysophyllum lanceolatum (Blume) A. DC., *Prodr.* 8: 162. 1844.

Donella lanceolata (Blume) Aubréville var. *malagassica* Aubréville, *Fl. Madag.* 164: 117, pl. 27: 5–6. 1974. Syn. nov. TYPE: Madagascar. Toamasina: environs de la baie d'Antongil, entre Anema et Amboditavolo, *Service Forestier 8954* (holotype, P).

Chrysophyllum masoalense (Aubréville) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Donella masoalensis* Aubréville, *Fl. Madag.* 164: 112, pl. 26: 6–7. 1974. TYPE: Madagascar. Fianarantsoa: vallée de Namorona près de Ranomafana, *Service Forestier 8833* (holotype, P).

Chrysophyllum perrieri (Lecomte) G. E. Schatz & L. Gautier, comb. nov. Basionym: *Donella perrieri* Lecomte, *Bull. Mus. Natl. Hist. Nat.* 34: 355. 1928. TYPE: Madagascar. Toamasina: Betampona près d'Ambodiriana, ouest de Tamatave, *Perrier de la Bâthie 17413* (holotype, P).

Donella perrieri Lecomte var. *pubescens* Aubréville, *Fl. Madag.* 164: 114. 1974. Syn. nov. TYPE: Madagascar. Toamasina: Tampolo, N Fénérive, *Service Forestier 8635* (holotype, P).

Donella perrieri Lecomte var. *sambiranensis* Lecomte, *Bull. Mus. Natl. Hist. Nat.* 34: 355. 1928. Syn. nov.

Donella sambiranensis (Lecomte) Aubréville, *Fl. Madag.* 164: 115, pl. 26: 5. 1974. Syn. nov. TYPE: Madagascar. Antsiranana: bassin du Sambirano, *Perrier de la Bâthie 15432* (holotype, P).

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