



Moutabea arianae, a new species of *Polygalaceae* from French Guiana and adjacent Brazil

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Key words

key Guianan species
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Abstract A new species of *Moutabea* (*Polygalaceae*), *M. arianae*, is described and illustrated.

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INTRODUCTION

During the study of the *Polygalaceae* for the Flora of the Guianas several years ago by A. Jacobs-Brouwer (unfinished manuscript, not published) a clearly different and apparently undescribed *Moutabea* species was found among the specimens of *Moutabea guianensis* Aubl., a widespread and well-collected species in the Guianas (well-illustrated in Jacobs-Brouwer 2002: 587). In the Guianas only *M. guianensis* was known so far. Despite several variable characters, especially leaf shape and size, it is easy to identify. The new species, described here, is remarkable by soft hairy leaves, whereas *M. guianensis* and all other known *Moutabea* species are glabrous.

The genus *Moutabea* is a neotropical genus with c. 11 species recognised. Several authors already mentioned the need of an up-to-date taxonomic revision of this genus (Wendt 2000: 6, Aymard 2004: 324).

The 11 species currently known are:

M. guianensis Aubl. 1775, the type species described from French Guiana, occurring also in Venezuela, Guyana, Suriname, and Brazil.

M. aculeata (Ruiz & Pav.) Poepp. & Endl. 1838. — *M. longifolia* Poepp. & Endl. 1838 (synonym published by Eriksen et al. 2000 and accepted by Aymard 2004), occurring in Costa Rica, Panama, Colombia, Ecuador, Peru, Bolivia, Venezuela, Brazil.

M. angustifolia Huber 1902, described from Brazil (Pará).

M. chodatiana Huber 1902, Brazil (Pará, Roraima) and possibly Venezuela.

M. dibotrya Mart. ex Miq. 1856, described from Brazil (Pará).

M. excoriata Mart. ex Miq. 1856, Brazil (Goiás, Mato Grosso).

M. gentryi T. Wendt 2000, described from Panama, also occurring in Costa Rica and Colombia.

2 new *Moutabea* species from Venezuela, as *M. sp. A* and *M. sp. B* (Aymard 2004: 326).

1 new *Moutabea* species from Ecuador, as *M. sp.* (Eriksen et al. 2000: 127).

The collections of *M. arianae* are all in fruiting stage, no flowers are present. Because of its fruit type the new species is placed in *Moutabea*, the fruit of which is a berry or drupe with a leathery pericarp and fleshy mesocarp, 4- or 5-locular, 2–5-seeded, seeds hairy and covered by a thin aril (looking glabrous when dried) (Verkerke 1985: 382). The other genera with drupe-like fruits in the *Polygalaceae* are *Barnhartia*, which has 2- or 3-locular, 2-seeded fruits and *Didclanthera*, which has 3–5-locular, 3–5-seeded fruits, the seeds are hairy outside (not glabrous) and lack an aril (Verkerke 1985: 384).

KEY TO THE GUIANAN SPECIES OF *MOUTABEA*

Young branches, petioles, and leaves glabrous; drupe surface smooth, pericarp up to 4 mm thick *M. guianensis*
Young branches, petioles, and lower side of leaves densely velutinous with soft brown hairs; drupe surface granular, pericarp c. 1 mm thick *M. arianae*

Moutabea arianae Jans.-Jac. & Maas, spec. nov. — Fig. 1

A. M. guianense ramulis novellis velutinis (nec glabris) et foliis subtus velutinis (nec glabris) bene differt. — Typus: G. Cremers 12298 (holo L; iso B, CAY, MO, NY, P, US), French Guiana, basin of lower Oyapock R., Savane Roche du Quatorze Juillet (03° 58' N, 51° 52' W), 50 m alt., 18 April 1991.

Tree or liana. Young branches, petioles, and axillary buds densely velutinous with soft brown erect hairs; older branches grey to greyish brown, becoming glabrous, somewhat striate and with pale lenticels; nodes with 2 annular glands in the stipular position, each gland 0.2–0.5 mm diam and sometimes somewhat elevated. Leaves simple, alternate; petiole 5–12 by 3–5 mm, often somewhat twisted; blade coriaceous, discolorous, green above, yellow-green below, usually narrowly obovate-elliptic, 10–26 by 4–10 cm, base cuneate, obtuse, or slightly cordate, apex rounded or obtuse, sometimes shortly mucronate, sparsely velutinous above, more densely so on the primary vein, covered with erect brown hairs (velutinous) below, more densely so on the primary vein, soft to the touch, becoming less densely hairy with age, with scattered annular glands of 0.2–0.3 mm diam present on lower side of blade especially towards apex and terminal curves of secondary veins; venation brochidodromous, primary vein raised above and below, secondary veins 8–12 to a side, at an angle of 45–65° with primary vein, hardly visible

or slightly impressed above, prominent and well visible below. Flowers unknown. Infructescence ramiflorous or terminal, 1.5–4 cm long. Drupe 4- or 5-locular, globose, 3.5–5.5 cm diam, surface granular, pericarp leathery, c. 1 mm thick; seeds 4 (or 5?) brown, ellipsoid, 15–18 by 10–12 mm, densely hairy, completely surrounded by a thin gelatinous aril (making the seed look glabrous when dried), testa rather loose.

Distribution — French Guiana and adjacent Brazil (Amapá).

Habitat & Ecology — Primary forest, in gaps and on slopes, at elevations between 50 and 300 m.

Phenology — Fruiting in April and November.

Etymology — This new species is named in honour of Arian Jacobs-Brouwer who discovered it while studying the *Polygalaceae* for the Flora of the Guianas.

Additional specimens examined. FRENCH GUIANA, Route Régina – Saint Georges (04° 3' N 52° 1' W), 80 m alt., 7 April 1991, G. Cremers & S. Gautier 12032 (CAY, US). – BRAZIL, Amapá, Serra do Navio, Rio Amapari, 3 Nov. 1954, R.S. Cowan 38141 (US).

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REFERENCES

- Aublet JBCF. 1775. Histoire des Plantes de la Guiane françoise 2: 680.
 Aymard GA, Berry PE, Eriksen B. 2004. Polygalaceae. In: Steyermark JA, Berry PE, Yatskievych K, Holst BK, Flora of the Venezuelan Guayana 8: 316–347.
 Eriksen B, Ståhl B, Persson C. 2000. Polygalaceae. In: Harling G, Andersson L, Flora of Ecuador 65: 1–132. Göteborg University, Göteborg, Sweden.
 Huber JE. 1902. Boletim do Museu Paraense de Historia Natural e Ethnographia 3: 426–427.
 Jacobs-Brouwer A. 2002. Polygalaceae. In: Mori SA, et al., Guide to the vascular plants of Central French Guiana 2. Memoirs of the New York Botanical Garden 76, 2: 585–589.
 Martius CFP. 1856. Flora Brasiliensis 7: 14–16.
 Poeppig EF, Endlicher SL. 1838. Nova Genera ac Species Plantarum quas in Regno Chilensi Peruviano 2: 62.
 Verkerke W. 1985. Ovules and seeds of the Polygalaceae. Journal of the Arnold Arboretum 66: 353–394.
 Wendt T. 2000. *Moutabea gentryi* (Polygalaceae), a new species of liana from Central America and Colombia. Lundellia 3: 6–12.

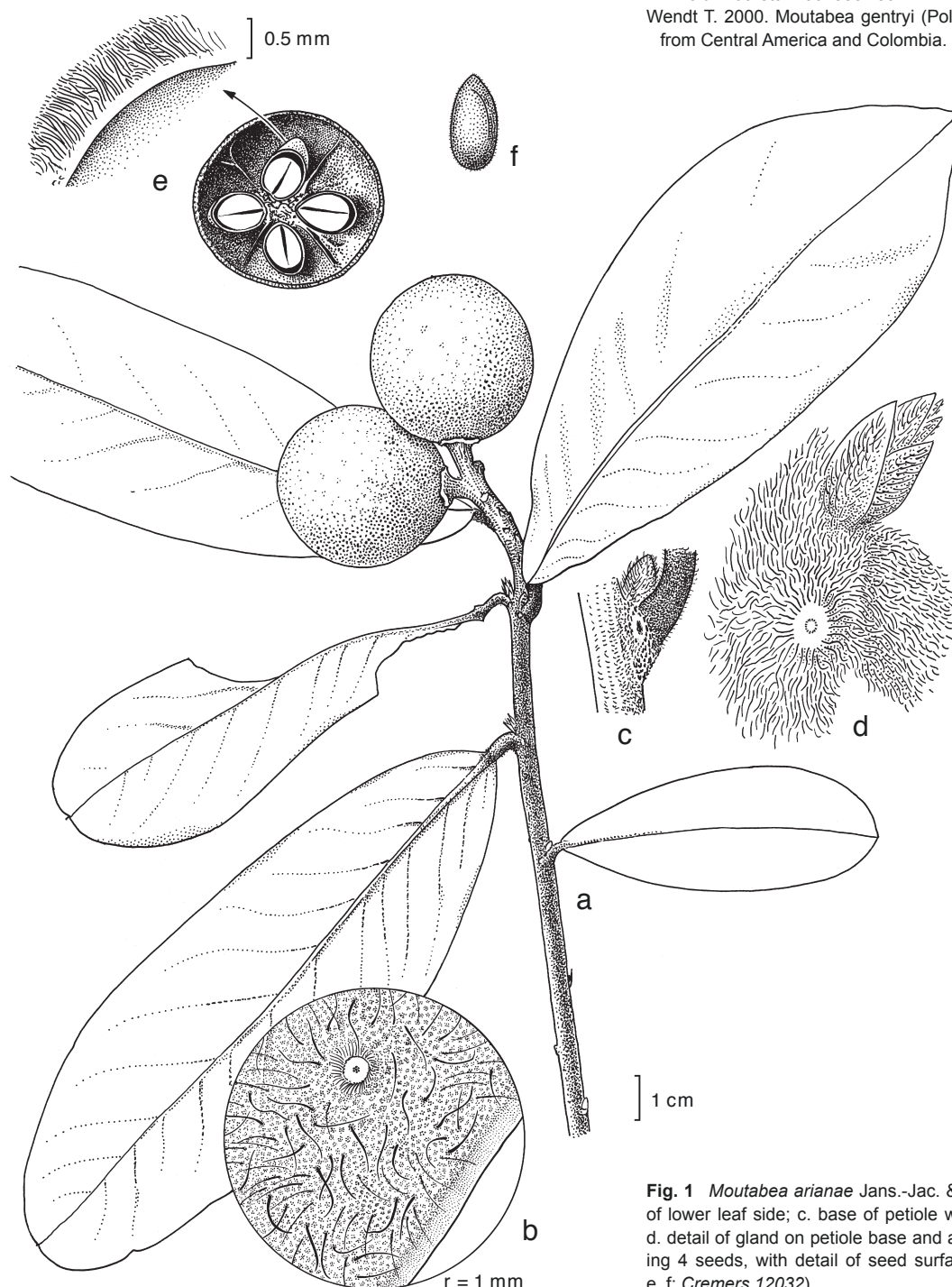


Fig. 1 *Moutabea arianae* Jans.-Jac. & Maas. a. Fruiting branch; b. detail of lower leaf side; c. base of petiole with annular gland and axillary bud; d. detail of gland on petiole base and axillary bud; e. dissected fruit showing 4 seeds, with detail of seed surface; f. seed (a–d: Cremers 12298; e, f: Cremers 12032).