

Novitates Gabonenses 82. A new species of *Mocquersysia* (Achariaceae, formerly Flacourtiaceae) from Gabon

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Background and aims – The species distinction within the tropical African genus *Mocquersysia*, known for its epiphyllous flowers, is investigated and discussed to clarify some discontinuities in their morphology and distribution.

Methods – Normal practices of herbarium taxonomy have been applied to study all herbarium material available at BR, LBV, P, and WAG.

Key results – The synonymy of *Mocquersysia epipetiola* and the type species *M. multiflora* is confirmed. The isolated population part of the latter in Central Gabon, proves to represent a new species *Mocquersysia distans*. The new species is described and illustrated.

Key words – Achariaceae, Flacourtiaceae, *Mocquersysia*, taxonomy, tropical Africa, Gabon, new species.

INTRODUCTION

Mocquersysia is a genus of small tropical African trees or shrubs now belonging to the family Achariaceae. Hua (1893) created the genus (at that time within Flacourtiaceae) based on the epiphyllous flowers and presence of only five stamens, as compared to *Phyllobotryon* Mull. Arg. and *Phylloclinium* Baill., the other genera with epiphyllous flowers with many stamens. Hul (1991) reduced the latter to a subgenus of the former. The type material of *Mocquersysia*, collected by *Mocquersys* in 1892, is from the Republic of the Congo (Letouzey et al. 1969) not from Gabon as stated by Gilg (1908, 1925), Pellegrin (1952) and Bamps (1968). Exell (1926) and Sleumer (1937) reported its presence for Cabinda (Angola).

In 1932 De Wildeman described a second species, *Mocquersysia epipetiola*, from Mayombe in the Belgian Congo with inflorescences on the petiole, not, as in *M. multiflora*, on the lower half of the leaf lamina. Bamps (1968) maintains it as distinct in his contribution to the *Flore du Congo du Rwanda et du Burundi*. Letouzey et al. (1969), in their paper on the *Phyllobotryae* of Central Africa, discussed the variation in epiphyllous flowers and concluded, as regards *Mocquersysia*, that the difference in position of the inflorescence was insufficient to maintain *M. epipetiola* as a distinct species and reduced it to a synonym of *M. multiflora*. Hul (1991), in her revision of the African Flacourtiaceae – Phyllobotryoneae, follows Letouzey et al. (1969) as regards this synonymy. She reports for the first time the presence of *Mocquersysia* in Ga-

bon. In her treatment of the Flacourtiaceae for the *Flore du Gabon*, Hul (1995) maintains the results of her earlier revision (Hul 1991).

The presence of *Mocquersysia multiflora* in Gabon (Hul 1991, 1995) had been based on one collection from SW Gabon (Reitsma, Breteler & Louis 966) and on three other collections from a narrow area in Central Gabon (Hul 1991, figure 1). One of these three collections served for the illustration in both of Hul's treatments (Hul 1991: figure 3, except part 2; 1995: planche 7, except part 2). The collection from SW Gabon, Reitsma et al. 966, has its inflorescences on the leaf blade and is somewhat aberrant, in having leaves that have more lateral nerves, (20–)25–30 against 15–18(–25), and inflorescences that are multiflowered, against 1–3-flowered as usually seen, but otherwise fits well in *M. multiflora*. The epithet 'multiflora' is derived from 'cymi pauciflori numerosi' (Hua 1893).

A more recent collection from SW Gabon (Bissiengou, Breteler, Niangadouma & Boussiengui 424), with inflorescences on the petiole as well as on the lower half of the leaf lamina, bridges the gap that remained between *Mocquersysia multiflora* and *M. epipetiola* as regards the position of the inflorescences. Bissiengou et al. 424 has brightly coloured, dark pink to red flowers quite different from the collections from Central Gabon which have pale green to greenish white flowers. The Central Gabon collections were therefore investigated more closely to see whether or not they truly belong to *Mocquersysia multiflora*. The investigation revealed that the inflorescences are only located on the upper half of the

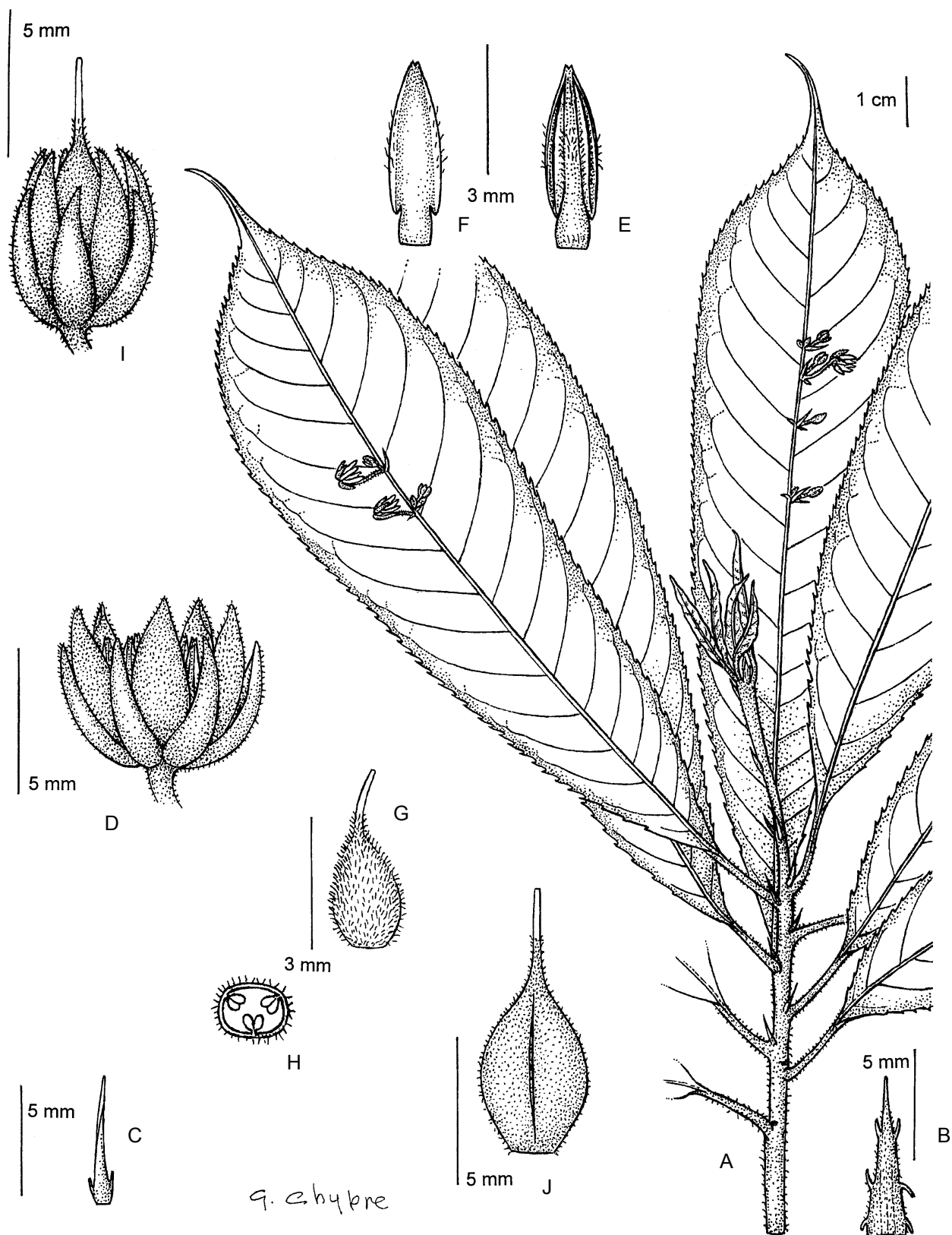


Figure 1 – *Mocquerysia distans*: A, flowering branch; B, stipule; C, bract; D, flower; E, stamen, ventral side; F, stamen, dorsal side; G, pistil; H, transverse section of ovary; I, young fruit with perianth; J, capsule. A-J from A.M. Louis et al. 732 (WAG). Drawing by G. Chypre, reproduced from *Flore du Gabon* vol. 34 (part 2 omitted) rearranged and adapted.

leaf lamina and that the flowers are distinctly smaller than in *Mocquersysia multiflora* s.s., in which the flowers are located on the petiole and the lower half of the leaf blade, and are, as far as reported, always pink to red-coloured. These differences, in connection with a distribution area that is at least at 300 km straight line distance apart from the nearest collection of *Mocquersysia multiflora* s.s., leads to the conclusion that the Central Gabon collections represent a distinct species (described below). Further field observations are required to determine whether the difference in ecology between the two taxa, dry land forest for the new taxon versus riverbanks for *Mocquersysia multiflora* s.s., as reported so far, may be added to their distinctness.

TAXONOMIC TREATMENT

Mocquersysia distans Breteler, sp. nov.

Mocquersysia multiflora Hua, p.p. Hul (1991: 164, 1995: 27), as regards material from Central Gabon.

Differing from *Mocquersysia multiflora* Hua by the inflorescences which are located on the upper half of the leaf lamina and by the smaller, greenish flowers. – Type: Gabon, Ogooué-Ivindo, c. 50 km SE of Achouka, Forêt des Abeilles, 0°17'S 11°55'E, alt. c. 350 m, 16 Nov. 1983, *A. M. Louis, Breteler & de Bruijn* 732 (holo-: WAG, sheets 1 & 2; iso-: BR, LBV, P, and, not seen: B, C, K, LG, MA, MO, PRE, SRGH).

Unbranched treelet up to 3 m tall and 1.5–3 cm in diameter. **Branchlets** puberulous. **Stipules** narrowly ovate-triangular, usually with a few teeth, 6–9 mm long, pubescent, caducous. **Leaves**: **petiole** semi-terete, grooved or canaliculate above, (0.8–)1.5–3(–6) cm long, puberulous, glabrescent; **lamina** stiff, coriaceous, narrowly obovate-oblongate, (3.5–)4.5(–5) times as long as wide, (12–)18–30(–33.5) × (2.5–)4–7(–9) cm, margin serrate-dentate, teeth usually with a caducous black apex, (1–)1.5–2.5(–3) cm long acuminate at apex, cuneate at base, glabrous above, puberulous on the main nerves beneath when young, soon glabrescent; midrib prominent both sides, with 16–25 pairs of ± prominent main laterals. **Inflorescence** a very short, epiphyllous raceme on the upper half of the lamina, rarely basally forked, mostly fascicle-like, 1–2(–3)-flowered, puberulous. **Bract** subtending the inflorescence ± subulate, 4–6 mm long, often basally dentate; bracts subtending the flowers narrowly triangular, 1–2 mm long. **Pedicele** 10–15 mm long, puberulous, the flowers usually noded, greenish. **Sepals** narrowly triangular (3–)4–6 × 1 mm, puberulous, persistent in fruit. **Petals** narrowly ovate-triangular, 5–6 × 1.5–2 mm, puberulous, persis-

tent in fruit. **Stamens**: filaments 0.5–1 mm long, glabrous; anthers 4–5 mm long, sparsely short-hairy. **Pistil** 6 mm long, ± appressed-hairy; ovary ovoid, ± as long as the simple, persistent style. **Fruit** (immature) ± obovoid, 6 × 4–5 mm, muciculate, sparsely appressed-hairy. Fig. 1.

Habitat and distribution – Tropical rain forest in Central Gabon. Alt. up to c. 350 m.

Additional specimens studied – **Gabon**: 15 km SE of confluence of Ogooué and Ivindo rivers, Forêt des Abeilles, 28 Feb. 1984, *Wilks* 881 (WAG); 3 Apr. 1984, *Wilks* 897 (WAG).

The morphological differences between the two species of *Mocquersysia* are summarized in the key below.

Note – Hul (1995) described the inflorescences of *Mocquersysia multiflora* s.l. correctly as being located on the petiole or on the lower half of the leaf lamina, contrary to the illustration where they are located on the petiole and on the upper half of the leaf lamina. Also Hul's perianth dimensions pertain to this species not to *Mocquersysia distans*.

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REFERENCES

- Bamps P. (1968) Flacourtiaceae (première partie) : Tribus Onco-beae, Scolopieae, Phyllobotryeae et Flacourtieae. In: Jardin botanique national de Belgique (ed.) Flore du Congo, du Rwanda et du Burundi, vol. 14: 1–61. Bruxelles, Jardin botanique national de Belgique.
- De Wildeman E. (1932) Plantae Bequaertianae 5(4): 411. Tervuren, Musée du Congo Belge.
- Exell A.W. (1926) Gossweiler's Portuguese West African Plants: Bixaceae. The Journal of Botany, British and Foreign 64, Supplement I: 20.
- Gilg E. (1908) Flacourtiaceae africanae. Botanische Jahrbücher für Systematik, Pflanzengeschichte und Pflanzengeographie 40: 444–518.
- Gilg E. (1925) Flacourtiaceae. In: Engler A. (ed.) Die natürlichen Pflanzenfamilien 21: 377–457. Leipzig, Wilhelm Engelmann.
- Hua H. (1893) *Mocquersysia*, nouveau genre à fleurs épiphylls de l'Afrique tropicale occidentale. Morot L., Journal de Botanique 7: 257–260, pl. III.
- Hul S. (1991) Révision des Flacourtiaceae-Phyllobotryoneae d'Afrique. Bulletin du Muséum National d'Histoire Naturelle, 4^e série, section B Adansonia, 13: 155–165.

Key to the two species of *Mocquersysia*

1. Inflorescences situated on the petiole and/or on the lower half of the leaf lamina; flowers pink to red; sepals 6–7 × 1.5 mm, petals 8–10 × 1.5–3 mm; from SW Gabon southwards to Republic of the Congo, Angola (Cabinda), and Mayombe of D.R.Congo.....*M. multiflora*
2. Inflorescences situated on the upper half of the leaf lamina only; flowers greenish; sepals (3–)4–6 × 1 mm, petals 5–6 × 1.5–2 mm; Central Gabon.....*M. distans*

- Hul S. (1995) Flacourtiaceae. In: Morat Ph. (ed.) Flore du Gabon, vol. 34: 1–82. Paris, Muséum National d'Histoire Naturelle.
- Letouzey R., Hallé N., Cusset G. (1969) Phyllobotryae (Flacourtiaceae) d'Afrique centrale; variations morphologiques et biologiques, conséquence taxonomiques. *Adansonia*, sér. 2, 9(4): 515–537.
- Pellegrin F. (1952) Les Flacourtiacées du Gabon. *Bulletin de la Société Botanique de France*, Mémoires, 1952, vol. 99: 105–121.
- Sleumer H. (1937) Flacourtiaceae. In: Wittnich Carrisso L. (ed.) *Conspectus Florae Angolensis I*: 78–87. Lisbon, Junta de Investigações Coloniais.
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