

its growth after brush-fires, the leaves opposite, aromatic, oval, very deep-green, sticky, with a sharp downwardly recurved spine "at each petiole base (but not petiolar)". They have found it growing in dry waste ground, in yellow sand, and on open savannas in red sandy soil of slopes between dunes, at 1000--1400 m. altitude, in flower in April, June to August, and December to February. Robinson calls it a "common very beautiful but noxious weed in agricultural lands". Brass found it "occasional on roadsides in open woodlands". Leistner describes it as "frequent". Story found it "locally frequent in open woodlands of *Burkea*, *Ochna*, and *Acacia* on sand. The only vernacular names recorded for the plant are "dale" and "kikosa".

The corollas are described by collectors as having been "red" on *Borle* 319, *Brass* 16881, *Codd* 5849, *Merxmüller* 1225, *Rodin* 2710, and *Story* 5260, "rose" on *Quarré* 3434, "very vivid red" on *Quarré* 4217, "blood-red" on *Seydel* 3674, "scarlet" on *Hutchinson* 3426 & 3882 and *Winter* 7501, "scarlet and yellow" on *Robinson* 2401, "cinnabar-red with yellow throat" on *Giess & al.* 6651, and "crimson with yellow center" on *Leistner* 1813.

Hutchinson (1946) cites his nos. 3426 & 3882.

Citations: ZAIRE: *Quarré* 3434 (Br, Br, Br, Br), 4217 (Br, Br, Br, Br, N). ZAMBIA: *E. A. Robinson* 2401 (Ba). ZIMBABWE: *Borle* 319 (W--1028989). MALAWI: *Brass* 16881 (N). NAMIBIA: *Codd* 5849 (Ss); *Giess, Volk, & Bleissner* 6651 (Mu); *Leistner* 1813 (Mu); *Merxmüller* 1225 (Mu); *Rodin* 2710 (Ba--isotype, W--2062821--type); *Seydel* 3674 (N, W--2671434); *Story* 5260 (Mu, Mu). BOTSWANA: *Winter* 7501 (Mu).

NOTES ON THE GENUS *KAROMIA*

Harold N. Moldenke

Lack of time this late in my life has made impractical the detailed monograph originally planned for this and all other genera of this family, but it has seemed worthwhile to place on record the bibliographic and herbarium notes assembled on the genus by my wife and myself over the past fifty years. Herbarium acronyms employed hereinafter are the same as used consistently since 1932 in all previous installments of these notes and are fully explained in my "Fifth Summary of the *Verbenaceae*....." (1971), volume 2, pages 795--801.

KAROMIA Dop, Bull. Mus. Hist. Nat. Paris, ser. 2, 4: 1052--1053. 1932.

Synonymy: *Karoma* Barkley, List Ord. Fam. Anthoph., ed. 2, 76 & 177. 1965.

Bibliography: Dop, Bull. Mus. Hist. Nat. Paris, ser. 2, 4: 1052--1053. 1932; Dop in Lecomte, Fl. Gén. Indo-chine 4: 891--893.

1935; A. W. Hill, Ind. Kew. Suppl. 9: 151. 1938; Fedde & Schust., Justs Bot. Jahresber. 60 (2): 573. 1941; Mold., Known Geogr. Distrib. Verbenac., ed. 1, 59 & 93. 1942; H. N. & A. L. Mold., Pl. Life 2: 34. 1948; Mold., Known Geogr. Distrib. Verbenac., ed. 2, 136 & 187. 1949; Angely, Cat. Estat. Gen. Bot. Fan. 17: 4. 1956; Anon., U. S. Dept. Agr. Bot. Subj. Index 15: 14357. 1958; Mold., Résumé 176, 413, & 458. 1959; F. A. Barkley, List Ord. Fam. Anthoph., ed. 2, 76 & 177. 1965; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 7, 596. 1966; Rouleau, Guide Ind. Kew. 101 & 352. 1970; Mold., Fifth Summ. 1: 301 (1971) and 2: 533, 763, & 883. 1971; Airy Shaw in J. C. Willis, Dict. Flow. Pl., ed. 8, 612. 1973.

Trees; leaves decussate-opposite, simple, exstipulate, marginally entire, petiolate; inflorescence cymose, determinate, the cymes di- or trichotomous, arranged in leafy terminal panicles; flowers hypogynous, slightly zygomorphic; calyx inferior, gamosepalous, obconic, the rim subentire, greatly enlarged in fruit; corolla gamopetalous, hypocrateriform, somewhat zygomorphic, the tube shortly cylindric, the limb subbilabiate, the posterior lip bifid, the inferior lip trifid; stamens 4, subequal, inserted in the corolla-tube, very much exerted; anthers 2-celled, dorsifixed, the cells divaricate, dehiscent by means of a longitudinal slit; ovary superior, compound, bicarpellary, 2-celled, each cell again 2-celled, the ultimate locules each 1-ovulate; pistil one; stigma shortly bifid; fruiting-calyx hypocrateriform, membranaceous, venose, the tube very short, the limb spreading, rounded, subentire or obscurely 5-lobed, greatly ampliate; fruit drupaceous, the drupes subturbinate, flat above and slightly 1-sulcate, immersed in the tube of the mature fruiting-calyx, splitting by means of 4 slits near the apex, the exocarp thin, formed of two layers, externally soft, internally crustaceous, the endocarp divided into 4 nutlets, the nutlets trigonous, separate, 1-seeded; seeds without endosperm, erect; radicle short, inferior; cotyledons elliptic.

Type species: *Karomia fragrans* Dop.

Dop (1932) comments that "Par se graine sans albumen, sa drupe a 4 noyaux ce genre se classé dans la tribu des Clerodendrees. Il se rapproche du g. *Holmskioldia* Retz par son calice. Cependant dans ce dernier genre le calice au moment de l'anthese est déjà subarrondi campanule et 10 fois plus large que le tube de la corolle. Dans le g. *Karomia* au contraire au même stade de l'évolution de la fleur le calice est petit, obconique, de même dimension que le tube de la corolle. Ce n'est que plus tard, sous le fruit, que le calice accru aura pris une forme et une dimension assez comparables a celles que l'on rencontre dans le g. *Holmskioldia*. En outre dans le g. *Holmskioldia* les lobes de la corolle sont courts et le tube généralement long. Dans le g. *Karomia* les lobes de la corolle sont très grands et le tube très court. A cet égard la corolle ressemble assez à celle du g. *Teucrium* Hook. f. Si j'ajoute que dans le nouveau genre les étamines sont insérées au sommet du tube de la corolle et non au milieu, que les loges des

anthères sont divergentes et non parallèles, sa validité semble suffisamment établie."

The genus, as far as it is known now, is monotypic. It is perhaps worth noting that the original publication is sometimes given erroneously as "ser. 3" or even "ser. 4".

KAROMIA FRAGRANS Dop, Bull. Mus. Hist. Nat. Paris, ser. 2, 4: 1053. 1932.

A tree, 12--13 m. tall; trunk to 45 cm. in diameter; branches terete, very lightly puberulent, finally glabrous; bark black, lenticellate; petioles slender, 1 cm. long, canaliculate above; leaf-blades chartaceous, rigid, ovate, 9--11 cm. long, 4--6 cm. wide, apically acute or short-acuminate, marginally entire, basally rounded or obtuse, glabrous on both surfaces, brunneous above in drying, paler beneath; midrib slender, rounded, impressed above, very prominent beneath; secondaries 10--12, very slender, slightly recurved at the leaf-margins; veinlet reticulation conspicuous; peduncles slender, 15--20 mm. long; cymes 10 cm. long and wide, forming a leafy terminal panicle, many-flowered, dichotomous or sometimes trichotomous, puberulent; inflorescence-branches capillaceous, flexuous; bracts foliaceous, puberulent, those subtending the flowers minute, linear, 3 mm. long; pedicles 1--2 mm. long, puberulent; flowers very pleasantly fragrant, 12 mm. long and wide; calyx onconic, slightly incurved laterally, lightly pubescent, 5-venose, the rim with 5 rounded very short lobes 2 mm. long and wide; corolla dark-blue, its tube cylindric, 3 mm. long, externally pubescent, internally glabrous, the limb subbilabiate, puberulent with gland-tipped hairs especially basally, the upper lip bifid, the lower lip 3-fid, the 4 superior lobes erect, oblong, 6 mm. long, 4 mm. wide, apically rounded, the lower lobe dilated, cucullate, 10 mm. long, 6 mm. wide, marginally entire; stamens subequal, very long-exserted; filaments 2.5 cm. long, glabrous, inserted at the apex of the corolla-tube and extending between the upper corolla-lobes; anthers ovate, 1 mm. long, glandular, dorsifixed, the thecae divaricate; ovary subturbinate, 1.5 mm. wide, villous and glandular; style filiform, slightly surpassing the stamens; fruiting-calyx subentire, 3 cm. wide, with 5 radiating veins, the rim obscurely 5-lobed, the lobes apically rounded, with a numerous firmly conspicuous veinlet reticulation; fruit drupaceous, subturbinate, 4 mm. long, 3 mm. wide, almost flat above, pubescent and glandulose; seeds separate in the center of the cavity.

This rare species is based on *Poilane* 9892 from Ka Rom and 17865 from Cana, in Phanrang province, Annam, Vietnam, in "Essence forestière croissant vers 400 mètres sur un sol très sabieux". Dop (1932) reports the vernacular name, "ca dien", for the species and asserts that its soft wood is of only poor quality.

Thus far, the species is known only from the two original collections deposited in the herbarium of the Muséum National d'Histoire Naturelle in Paris.



Moldenke, Harold N. 1980. "Notes on the genus *Karomia*." *Phytologia* 46(3), 190–192.

View This Item Online: <https://www.biodiversitylibrary.org/item/47043>

Permalink: <https://www.biodiversitylibrary.org/partpdf/219824>

Holding Institution

New York Botanical Garden, LuEsther T. Mertz Library

Sponsored by

The LuEsther T Mertz Library, the New York Botanical Garden

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Phytologia

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.