

## *Craterispermum parvifolium* and *C. robbrechtianum* spp. nov. (Rubiaceae) from west central Africa

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*Craterispermum parvifolium* and *C. robbrechtianum* spp. nov. are described from the Lower Guinea Domain. Detailed descriptions and distribution maps are provided for each species, their conservation status is assessed and their taxonomic affinities are discussed. An identification key for the *Craterispermum* species of the Lower Guinea Domain is given.

The genus *Craterispermum* Benth. is distributed in tropical Africa, Madagascar and the Seychelles (Robbrecht 1988). The species are shrubs or small trees with leaves that are brittle when fresh (they snap/break when folded) and pale yellowish or greenish when dry. The inflorescences are axillary, paired at the nodes, usually compact, with few to many small, heterostylous, white flowers. The ovary is bilocular with a single, apically attached, pendulous ovule in each locule. One ovule aborts and the fleshy fruit contains a single seed shaped like an asymmetrical shallow or deep bowl. The seed has a peculiar, discontinuous seed coat, comprised of isolated cells with ring-like thickenings (Igersheim 1992). *Craterispermum* species have been shown to accumulate aluminium in leaves and stem tissue (Jansen et al. 2000); the pale yellow or green colour of the dried leaves is typical for aluminium accumulating species.

Because of the above-mentioned characters, *Craterispermum* is easily recognized at the genus level. However, many of the species look similar and identification at the species level is difficult. No recent treatment for the whole genus exists, except in certain local floras (like 'Flora of tropical east Africa'; Verdcourt 1976). Until now, the numerous specimens collected in Africa and Madagascar over the last two hundred years remain mostly unidentified at species level, partly because the material is often very poor. Flowers are short lived and not often collected; fruits are probably quickly eaten after maturity. Both flowers and fruits fall off easily during drying and pressing because of the compact inflorescences. This also makes new *Craterispermum* species hard to describe. Next to the 16 species currently known to science (Govaerts et al. 2011), several new species exist, both in continental Africa (Sosef et al. 2006) and in Madagascar (Verdcourt 1973, Randriamboavonjy and De

Block 2010). In this paper, we describe two new species from Cameroon, Gabon and Rio Muni, *C. parvifolium* and *C. robbrechtianum*.

### Methods

Herbarium material of the following institutions was studied: BR, BRLU, G, MO, P, WAG and YA. All cited specimens have been seen. Descriptive terminology follows Robbrecht (1988) and Anonymous (1962). Phyto-geographical terminology follows White (1979), but we simplified his '(sub)centres of endemism' into Domain and Region. Measurements and other given details are based on the study of herbarium specimens, material conserved in alcohol, and data derived from field notes, using a Leica MZ95 stereomicroscope. In the descriptions and key, inflorescence size does not include the corollas, and given colours (except flower colour) are for dried material. Specimens are cited per country, alphabetically by collector. The conservation status was assessed by applying the IUCN red list category criteria (IUCN 2001).

### Identification key of species present in the Lower Guinea Domain

- 1 Tertiary and especially quaternary venation obscure; leaf blades coriaceous. . . . . 2
  - Tertiary and quaternary venation conspicuous; leaf blades coriaceous or papyraceous . . . . . 3
- 2 Inflorescences 2.2–18.0 mm long, very compact, subcapitate or consisting of 2–3 branches 4.5–15.0 mm long; peduncle 0.6–7.0 mm long; leaf blades