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Gabonius gen. nov. (Leguminosae, Caesalpinioideae, Detarieae), a distant cousin of *Hymenostegia* endemic to Gabon

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Abstract

A new genus, *Gabonius* is described to accommodate a single species, *Gabonius ngouniensis* which was previously misplaced in *Hymenostegia sensu lato*. *Gabonius ngouniensis* is a widespread Gabonese endemic of evergreen forest. We assess *G. ngouniensis* as Least Concern (LC) according to IUCN criteria. A distribution map of *Gabonius* is presented, as is a table comparing the morphology of *Gabonius*, the closely related, possibly sister genus *Micklethwaitia* and *Hymenostegia sensu stricto* from which *G. ngouniensis* has been excluded. The previously unreported seedling morphology is discussed.

Key words: Amherstieae, Conservation, Fabaceae, New genus, Taxonomy, Tropical Africa

Introduction

The Legumes are one of the most important plant families in the world, both in terms of species richness (third largest family after composites and orchids) and in economic importance where they are arguably as valuable as the grasses (Lewis *et al*. 2005). Subfamily Caesalpinioideae has its widest generic diversification in Africa. The main source of this diversification is found in one of the earliest branches of the family, the Detarieae, a tribe that consists solely of woody plants, the majority trees (Mackinder 2005). Detarieae are considered an important ecological component of both rain forest and woodland systems in Africa. In the wettest forests of Africa, especially those on phosphorus-poor soils, Detarieae species dominate the canopy layer, with up to 60% of the trees belonging to this tribe, a phenomenon commonly attributed to the ectomycorrhizal symbioses of these trees (Newbery *et al.* 1997, Wieringa 1999, Ba *et al.* 2012). One widespread African woodland type, Miombo woodland, is a formation dominated by *Brachystegia* Benth. in Bentham & Hooker (1865: 582) alone or together with species of *Julbernardia* Pellegrin (1943: 297) or *Isoberlinia* Craib & Stapf ex Holland (1911: 266–267). All three genera are members of Detarieae.

From a taxonomic point of view, one of the most problematic areas of the Detarieae is the genus *Cynometra* Linné (1753: 382–383) and some of the genera that have been derived from it in the past, such as *Plagiosiphon* Harms in Engler & Prantl (1897: 194), *Scorodophloeus* Harms (1901: 77), *Talbotiella* Baker f. (1914: 2), *Lebruniodendron* Léonard (1951: 421) and in particular *Hymenostegia* Harms in Engler & Prantl (1897: 193). While *Cynometra* is a pantropical genus, *Hymenostegia* as currently circumscribed, is endemic to Africa, and is under the scrutiny of the first two authors using a combined morphological and molecular approach. Prior to our studies 16 species were recognised in the genus, 15 by Léonard (1951) with one

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