



## New rattans from New Guinea (*Calamus*, Arecaceae)

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### Abstract

The rattan genus *Calamus*, the largest genus of palms (Arecaceae or Palmae), is poorly known in New Guinea. In preparation for a monograph of *Calamus* in New Guinea, we describe and illustrate fourteen new species here: *Calamus badius*, *C. barfodii*, *C. bulubabi*, *C. cheirophyllus*, *C. croftii*, *C. johnsii*, *C. lucysmithiae*, *C. nanduensis*, *C. oresbius*, *C. retroflexus*, *C. sashae*, *C. spanostachys*, *C. spiculiferus* and *C. womersleyi*. Although many appear to be rather rare, several are widespread, common species and some are of considerable use to local people. These new discoveries highlight the need for further studies of palms in eastern Malesia, especially New Guinea.

**Key words:** lianas, palms, Papuaia, taxonomy, South-East Asia, rattans

### Introduction

With approaching 400 species, *Calamus* Linnaeus (1753: 325) is the largest genus of palms (Arecaceae or Palmae; Dransfield *et al.* 2008). It is also the most widespread of the genera of rattans, the spiny climbing palms of the Old World and the source of commercial rattan cane, ranging from India to Fiji with a single outlier in humid tropical Africa. *Calamus* is most species rich in the Sunda region of Malesia, with as many as 150 species occurring across the Malay Peninsula, Borneo, Sumatra and Java (183 species if the Philippines are included), and 82 in Borneo alone (Baker & Couvreur 2012, Govaerts *et al.* 2013). However, while diversity declines sharply to the east of Wallace's Line, a secondary peak of species richness occurs in New Guinea, where some 52 are currently recognised. Compared to the Sunda region (e.g. Dransfield 1979, 1984, 1992, 1997), *Calamus* species diversity in New Guinea was neglected until the initiation of a collaborative research programme on the entire palm flora of New Guinea (Baker 2002a, Baker & Dransfield 2006), resulting in a number of treatments of smaller groups and new species (Baker 2002b, Baker & Dransfield 2002a, 2002b, Baker *et al.* 2003, Dransfield & Baker 2003).

During the course of research for a monograph of New Guinea *Calamus*, we have studied almost 1000 specimens in the most relevant herbaria (A, BH, BM, BO, BRI, CANB, L, LAE, K, MAN, MEL, NY, WRSL; acronyms following Thiers 2013), which we believe to be almost the entirety of material available globally. We have also studied *Calamus* in the wild in numerous sites across New Guinea during field work with our partners at the University of Papua, Herbarium Bogoriense and the Papua New Guinea Forest Research Institute. We have discovered a large number of undescribed species both during our own field exploration and among existing herbarium specimens. Predictably, many species are narrowly distributed and rare, but a remarkable number are widespread or even common (e.g. *Calamus bulubabi*, *C. johnsii*, *C. oresbius*, *C. retroflexus*) and are useful to local people, highlighting the inadequacy of previous knowledge of this group. In preparation for our forthcoming monograph, we describe 14 of the new species here.

### Taxonomic Treatment

**A note on geography:**—The nomenclature of New Guinea geography can be confusing. New Guinea is the name for the entire island (the largest tropical island in the World). The island is divided into two political entities. The

*Calamus womersleyi* appears to be most closely related to *C. nanduensis* and *C. pseudozebrinus* (see notes under *C. nanduensis*).

This species is named for John Womersley, former Assistant Director of the Division of Botany, Department of Forests, Papua New Guinea, who made several specimens of this species and collected the type specimen with American palm authority, Harold E. Moore, Jr.

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