



## *Vietnamocasia*, a new genus from Central Vietnam belonging to the *Alocasia-Colocasia* clade (Araceae)

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### Abstract

*Vietnamocasia*, a new monotypic aroid genus in the *Alocasia-Colocasia* clade, is described with the type species, *Vietnamocasia dauae*. *Vietnamocasia* is distinguished by possessing free individual staminate flowers, lacking expanded synconnectives, and having nodding inflorescences. Vegetatively *Vietnamocasia* is reminiscent of species of the distantly closely related *Alocasia* Cuprea Group, although *Vietnamocasia* is so far only known from the type locality in Central Vietnam, over 1200 km NE from the nearest representative of the *Alocasia* Cuprea Group. The phylogenetic analyses of *Vietnamocasia dauae* together with representative taxa from all genera of the *Alocasia-Colocasia* clade recovered *Vietnamocasia* as a strongly supported clade sister to *Alocasia*, together nested in a clade to which *Leucocasia* is a sister taxon. *Vietnamocasia dauae* is illustrated from living plants and with a line drawing. A key to all genera of *Alocasia-Colocasia* clade is included.

**Key words:** Endemics, Indochina, Malesia, phylogeny, *Vietnamocasia dauae*

### Introduction

The Araceae is one of the largest families of monocots with an estimated 6000 species (of which about 3500 are formally described) in 128 genera (Mayo *et al.* 1997, Boyce & Croat 2011). The highest diversity concentrated in the humid tropics of the Neotropics, Afrotropics, and IndoMalaya. Many aroid genera remain taxonomically poorly understood, with fieldwork consistently discovering undescribed taxa.

The *Alocasia-Colocasia* clade comprises about 110 species diminutive geophytes to massive pachycaul-arborescent terrestrial or epilithic mesophytes, rather rarely helophytes, distributed from the subtropical eastern Himalayas throughout subtropical and tropical parts of Asia into the western Pacific and eastern Australia. The most recent phylogenetic analyses of Araceae (Cusimano *et al.* 2011, Nauheimer *et al.* 2012a,b) revealed Colocasieae (sensu Mayo *et al.* 1997) as a polyphyletic assemblage with *Leucocasia gigantea* (Blume 1823: 103) Schott (1857: 34) forming a well-supported separate clade along with *Alocasia* (Schott 1832: 18) G. Don in Sweet (1839: 631). Consequently the rank Colocasieae can no longer be used for the *Alocasia-Colocasia* clade since it lacks phylogenetic support. While Alocasiinae formally exists (Schott, 1856: 43) its rank is inappropriate and in any case its historical usage is incongruent with the retrieved phylogeny. Therefore we opt to use rankless *Alocasia-Colocasia* clade which includes the *Colocasia* clade (Cusimano *et al.* 2011, Nauheimer *et al.* 2012a,b) with *Alocasia* and *Leucocasia* Schott (1857: 34) in the *Alocasia* clade. The *Alocasia-Colocasia* clade includes *Alocasia*, *Ariopsis* Nimmo in Graham (1839: 252), *Colocasia*, *Englerarum* Nauheimer & Boyce (2014: 713, epublished 2013), *Leucocasia*, *Steudnera* Koch (1862: 114), *Remusatia* Schott (1832: 18), and *Vietnamocasia* from this study.