



## A new species of *Aristolochia* subgenus *Siphisia* (Aristolochiaceae) from central Vietnam

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### Abstract

*Aristolochia annamensis*, a new species from central Vietnam, is described and illustrated. This new species, belonging to *Aristolochia* subgenus *Siphisia*, is characterized by a truncate to slightly cordate leaf base, a strongly constricted, a straight, oblong, cylindrically-shaped upper tube without veins, 3–3.2 cm long, limb subcordate with margin of three lobes somewhat recurved, but not revolute, inner surface of limb smooth, annulus absent, throat densely covered with purple dots. In addition to the description, line drawings, ecology, conservation status as well as comparison with morphologically similar species are provided.

**Key words:** *Aristolochia*, new species, *Siphisia*, taxonomy, tropics, Vietnam

### Introduction

*Aristolochia* Linnaeus (1753: 960), the largest genus of Aristolochiaceae, comprises about 500 species and is widely distributed throughout the tropics, subtropics and also extends to temperate regions. Recent phylogenetic studies of the genus based on morphological and molecular data have not only revealed its monophyly, but also confirmed the subdivision of *Aristolochia* into three subgenera (e.g. Wanke *et al.* 2006): *Aristolochia* (Schmidt 1935: 237) Ma (1989: 332), *Siphisia* (Rafinesque 1828: 62) Duchartre (1854: 29), and *Pararistolochia* (Hutchinson & Dalziel 1928: 23) Schmidt (1935: 241). *Aristolochia* subgenus *Aristolochia* occurs from the Mediterranean zone to subtropical and tropical areas of America, Africa and Asia, *Aristolochia* subgenus *Pararistolochia* is present in tropical Africa and Australasia, whereas *Aristolochia* subgenus *Siphisia* shows a disjunct South- and East Asian, and Central- and North American distribution (González & Stevenson 2002, Neinhuis *et al.* 2005, Wanke *et al.* 2006, Ohi-Toma *et al.* 2006, González *et al.* 2014, and Buchwalder *et al.* 2014).

Subgenus *Siphisia* is characterized by a strongly curved perianth, a 3-lobed limb, as well as a 3-lobed gynostemium. In total 75 species have been described, 20 of which occur in the New World and the 55 remaining species are confined to the Old World. Within the New World, Central America including Mexico is most diverse, since 15 out of 20 species are found here. In South-East Asia, southern China and Vietnam represent the most diverse centers (33 out of 55 species), followed by the Himalayan region (8 out of 55 species, Wagner *et al.* 2012, Do *et al.* 2015).

In contrast to the relatively well-studied neighbouring countries in (sub-)tropical to temperate Asia such as China (Ma 1989, Hwang *et al.* 2003), India (Samanta *et al.* 1999), Japan (Watanabe *et al.* 2006, Watanabe *et al.* 2008), Malesia (Hou 1984), and Thailand (Phuphathanaphong 1987), a comprehensive investigation of the diversity and taxonomy of *Aristolochia* in Vietnam is still lacking. The only exceptions are an illustration of *Aristolochia* species occurring in Indo-China (Vietnam, Laos and Cambodia) with brief information on taxonomy (Pham 2000) and a checklist of *Aristolochia* species without further information about taxonomy (Nguyen 2005). During the past 15 years, many new species of *Siphisia* were described from South-East Asia (Hansen & Phuphathanaphong 1999, Liu & Deng 2009, Xu *et al.* 2011, Yao 2012, Huang *et al.* 2013, Wu *et al.* 2013, Huong *et al.* 2014, Do *et al.* 2014, 2015). These newly described species not only confirm the South-East Asian region as one of the most diverse areas for *Siphisia* but also highlight that new species are likely to be discovered when more field work in remote areas is undertaken.