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A NEW *AMORPHOPHALLUS* SPECIES (ARACEAE) FROM VIETNAM

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Keywords: Amorphophallus candidissimus; New species; Vietnam; Araceae.

The genus *Amorphophallus* Blume *ex* Decne. (Araceae) consists of about 200 species described from paleotropical region, including West to East Africa, South and South-east to East Asia, North Australia and Pacific islands (Li and Hettterscheid, 2010). Many new species of *Amorphophallus* from Tropical Asia, Africa and Madagascar have been published in the recent years (Ittenbach and Lobin, 1997; Bogner, 2003; Hettterscheid, 2011; Hettterscheid *et al.*, 2012). There are about 16 species of *Amorphophallus* in the forest and hilly areas from the North to the South of Vietnam [Botany Research and Development Group of Vietnam (BVNGroup), www.botanyvn.com].

During a field work in Vietnam in 2004, a species belonging to the genus *Amorphophallus* was collected which did not match with any known species of the genus. After critical examination the species has been described as a new species *Amorphophallus candidissimus*. It has been introduced in the Kunming Botanical Garden of the Chinese Academy of Sciences, China and is growing well. After 5 years of observation we collected the inflorescence from the living plant in the garden for description. The new species *Amorphophallus candidissimus* is described and photographs of different parts of the species are given. The morphological similarities of the newly described species with other species are also discussed.

***Amorphophallus candidissimus* X. Gong *et* H. Li, sp. nov.**

(Fig. 1)

Type: China. Yunnan: Cultivated at Kunming Botanical Garden, Chinese Academy of Sciences [introduced from Cuc Phuong National Park, NhoQuan district, NinhBinh Province Vietnam, 15 Dec. 2004. Inflorescence: 22 Jun. 2011; Leaf: 9 Oct. 2011], Xun Gong 37521 (KUN, spiritcoll., holotype!)

Diagnosis: *Amorphophalli muelleri* Blume (*Amorphophalli erubescenti* Hett.) *similis sed tubere dense verrucoso, folii lamina sine bulbilis, spatha candida, base intra laevigata, late infundibulari, 9 cm longa, spadice brevior, appendice alba, ovate-conica, 5 cm longa et 2.5 cm diametro differt.*

Tuber depressed globose, slightly brown outside, white inside, surface densely verrucose, 3-5 cm high, 7-9 cm in diam. at the top, no offset development. Leaf solitary; petiole terete, 27 cm long, 1 cm in diam., smooth, uniformly pale brown with a few pale whitish oblong, with sparse elliptic spots; lamina lacking bulbils: upper side green, and lower side pale green with reddish veins, c. 40 cm in diam. divided into three main branches; main branches equally long; rachises once pseudodichotomously branched, naked; leaflets elliptic, elliptic-oblong, 4-14 cm long, 2.5-5.5 cm wide, apex acuminate, base asymmetric and decurrent on one side, margin entire. Inflorescence long peduncled; peduncle 21 cm long, 11 mm in diam, smooth, slight brown, with scattered elliptical, whitish spots; spots c. 1-21 x 1-9 mm; spathe erect, wide infundibuliform upperward, base convolute, without constriction in between the basal and upper portions, inner

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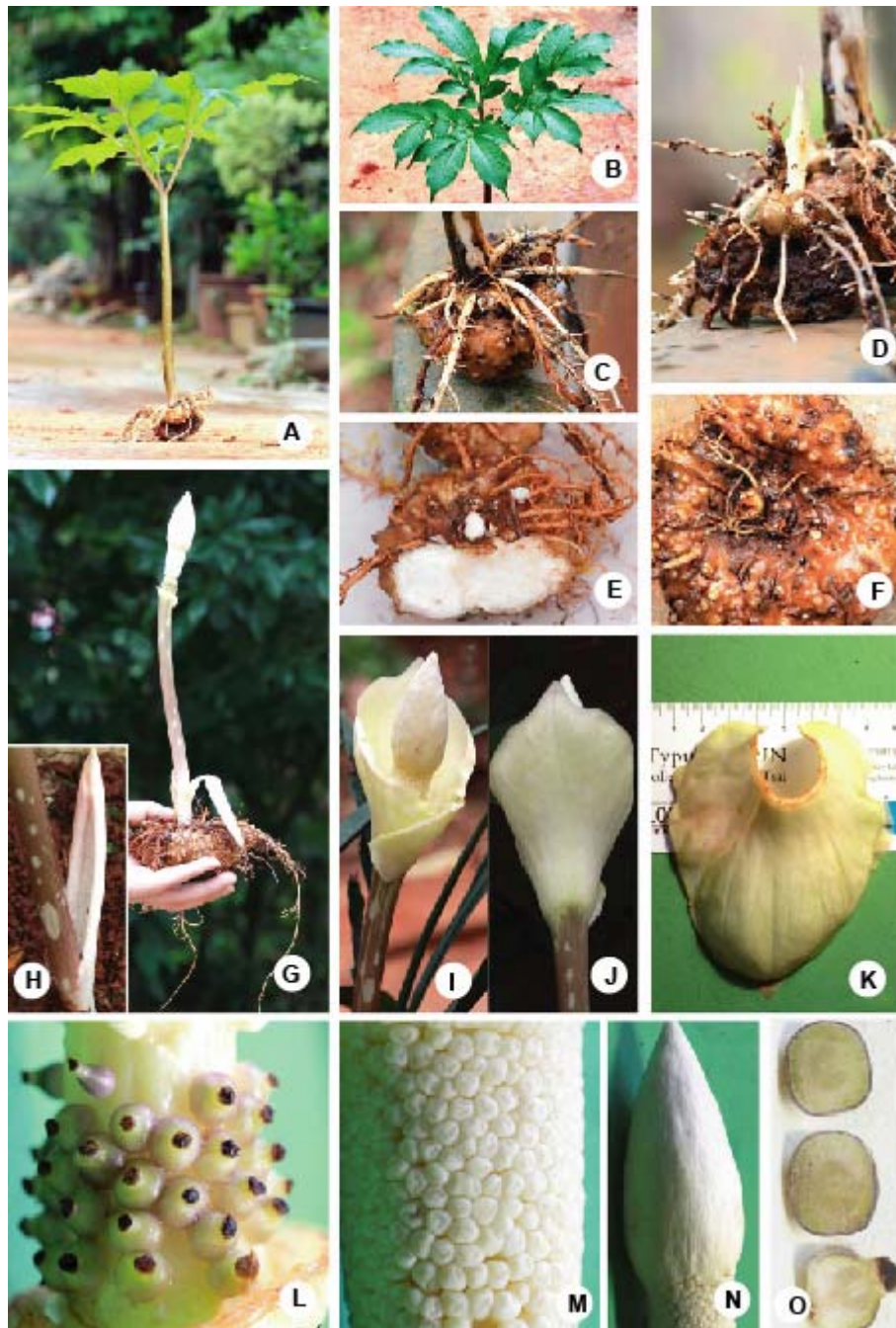


Fig. 1. *Amorphophallus candidissimus* X. Gong et H. Li, *sp. nov.*, A. Plant with tuber and leaf; B. Leaf-lamina - view from top; C. Tuber with warts; D. Tuber with young vegetative shoot; E. Vertical section of tuber; F. Top-view of tuber; G. Tuber with inflorescence - spathe removed; H. Basal part of petiole and cataphyll; I. Inflorescence; J. Inflorescence - showing abaxial side of spathe; K. Detached spathe - abaxial side; L. Female zone of spadix; M. Male zone of spadix; N. Appendix of spadix; O. Female flower - cross section of ovary, and longitudinal section.

and outer sides white, smooth, no spots outside, base within without small warts, 9 cm long, 8.5 cm wide (when expanded), apex cuspidate with blunt tip, margin entire. Spadix sessile, leviter, longer than spathe, 10 cm long; female zone light pink, cylindric, c. 10 mm long, c. 15 mm in diam., flowers congested; male zone white, obconic c. 2.4 cm long, lower part c. 1.2 cm in diam., upper part c. 2.1 cm in diam., flowers congested; naked zone between female and male zones white, smooth, 3-4 mm long; appendix ovate-conoid, white, base smooth, without warts, c. 5 cm long, c. 2.5 cm in diam., smooth. Female flowers white, ovary subglobose, c. 2.5 mm high, c. 2.5 mm in diam., bilocular; stigma sessile, black, shallowly 3-lobed. Male flowers consisting of 2-3 thecae; each c. 1.5 mm long; filaments c. 1 mm long, fused entirely, whitish; thecae c. 0.5 mm long, 1.0-1.5 mm in diam., whitish, pores apical. Pollen psilate.

Distribution and habitat: Only known from the type locality, Cuc Phuong National Park, Nho Quan district, Ninh Binh province, Vietnam, ca 550-600 m above the sea level, around 20°21'29" N, 105°35'22" E, it grows in rock crevices, and mossy tree trunk.

Etyymology: The species epithet refers to the white colour of the inflorescence, spathe and the spadix.

Notes: *Amorphophallus candidissimus* somewhat is related to *Amorphophallus muelleri* Blume from Tropical Asia (from Andamans eastward through Myanmar into northern Thailand south-eastward on Sumatra, Java, and Timor), but differs in having tuber with numerous succulent warts, the leaf lamina lacking bulbils, the spathe infundibulate, white on both sides without any spots, base within without warts, wide infundibulate upper ward, without constriction in between, 9 cm long, 8.5 cm wide, the naked zone between female and male zones at spadix present, white, smooth, 3-4 mm long; the appendix ovate-conical, white, 5 cm long, 2.5 cm in diam.

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