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A NEW AMORPHOPHALLUS FROM THAILAND

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ABSTRACT

AmorpknphoMus dixenii is described and illustrated; this new species is assigned to section *Cimdaritm* and key to Asiatic species of this section is presented. Chromosome number of this species is found to be 2n = 28.

ABSTRAK

Pertelaan bergambar *AmorphophaUna ditremi* disajikan; jenis baru ini dimasukkan dalam soksi *Cuiidarum* dan kunci determinasi jenis-jenis seksi ini yang ada di Asia dieuguhkan juga. Jumlah kromosom jenis ini ternyata 2n zz 28.

During an expedition to Thailand in 1970 Mr. Hans Dixen (Aarhus) collected a large tuber of an *Amovphophailvs* at Doi Chieng Dao in North Thailand. The tuber was sent back and planted in our greenhouse in January 1971. In the early summer it produced an inflorescence, the study of which showed that it belonged to an undercribed species; 2-3 months later one large leaf developed (Fig. 1a). *Vfe* have chosen to name this species after the collector.

The taxa clearly belongs to the section *Cnndarum* Engl. (in Engler, Pflanzenfam. IV. 23 C. 1911). It is related to *A. campamdatus* (Roxb.) Bl. ex Dene (Syn.: *A. rex* Prain ex Hook, f.) from which it deviates in that the appendix has a truncate apex and a more narrow and closed apathe. The anthers are longer in our species and the ovary always seems to be 2-celled, correspondingly the stigma is always 2-lobed.

KEY TO SECTION CUNDAKUM IN MAINLAND ASIA

1-a. Appendix glabrous . . . . . *A. dubius* Bl.
b. Appendix irregularly furrowed *2*
2-a. Appendix truncate-conoid . . . . . *A. ilixemi* It. & S. Larsen
b. Appendix conoid *3*
3-a. Appendix up to 5 cm diam. . . . . *A. eampanalatus* Gagnep.
b. Appendix 7-12 cm diam. . . . . *A. bungkokensis* <Ronb.) Bl. en Dene.

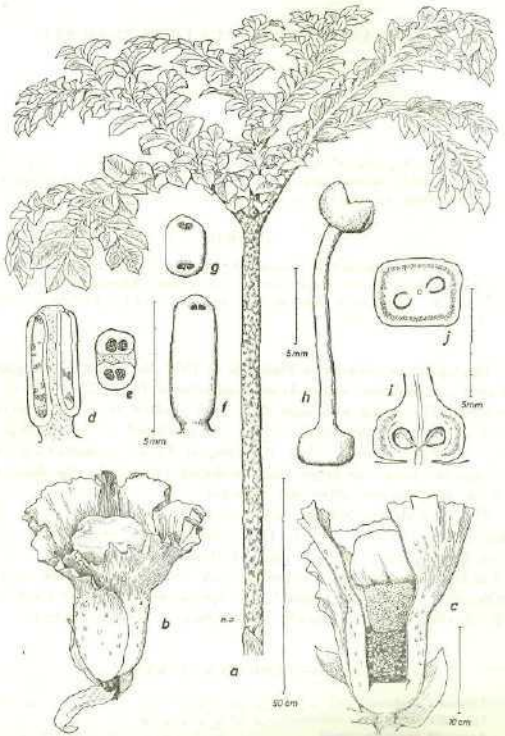

Fig. 1. *Amerpkophalhte dixexii K. & S.* Larson. — a. leaf; d. anther, longitudinal section; e. anther, erosg Eection; £-*g.* anther; h. gynoecium; i. longitudinal section oX ovary; j. cross section of ovary — del. B. Johnson.

Amorphophallus dixenii K. & S. Larsen, *spec. nov.* — Fig. 1.

A. campanulato affinis, appendice spadicis trtmcatoeonica, spatha altiore angustiore, staminibus et ovario dissimilibus ab eo diversus.

Tuber supra depressum, circiter 15 cm altum, 25 cm diam., radicellis praesertim e facie superiore emissis.

Folia: Cataphylla 1 (—2), majus circiter 10 cm Icnijnim, membrana-Ceum, amplcxicaula. Folium vei-um unicum; petiolus 95 cm iongus, basi 4 cm diam., viridis albo-marmoratus, verrucosus; lamina tripartite, partibus circiter 100 cm longis, infra per 20 cm carstoiilibus, simplicibua, supra bis dichotomis, e segmentis inaequalibus compositis, rhachibua a segmentis decurrentibus alatis.

Infloreacentia: Pedunculus 40 cm longus, 2.5 cm crassus, dua cataphylla infra gerens late lanceolata, 10—15 cm longa, 5—8 cm lata. Spatha profunde campanuliformia, medio apulum constricta, 20 cm longa, basi 6 cm diam., medio 8—9 cm, supra margin© evoluto 15—18 cm, extra infra partem constrictam viridula, supra vinacea vel subfusca, ubique maculia albis aparsis notata; intra in parte infima 7 em alta (Juxta flores femineos) saturate vinacea, vevrucosa, supra per 3 cm lutea, laevis, in summa parte vinacea, reticulata, margine undulata, apulum revoluta. Spadix in parte infima 7 cm longa cylindrica 5 cm crassa flores femineos gerens, obscure vinaceus, stigmatibus aurantiacis vel flavidis, in parte superiore 6 cm longa infra 3 cm crassa aurantiacus, flores masculos gerens; appendix plus minus cylindvica vel truucato-conica, plicata, 5 em alta, 10 cm diam., vinacea, verrucosa.

Flores: Flos feminius nudus; ovarium 2 mm altum. 3.5—4 mm latum, bilooulare, ovulo in quoque loculo unico anatropo; stylus 14 mm longus, 1 mm crassus; stigma 3 mm longum, 4 mm latum, profunde bipartitum. Veatimentum masculae partis spadicis e staminibus solum compositum. Stamen bacilliforme, 1—1.5 mm latum, 4—5 mm longum, filamento brevissimo, anthers duabus poris terminata bipartitis, quattuor sacculis ita sua cuique part eapertis.

Pollen; Grana substantia flavida conglutinata, copiose in fundo spathae concervata.

Fructus ignotus.

Numerus chromoKomatuin: 2n = 28.

Typus. Tuber die 20 Oct. anni 1970 650 m supra mare in solo humido silvae sempervirentis montancae ad montem Doi Chieng Dao ab oppido Chieng Mai in septentriones situm a Hans Dixen sub numero 701515 lectus, in Horto Botanico Aarhusiensi culhim, materie typifica anno 1971 Me collecta, in Herbario Jutlandico (AAU) deposita.

In an earlier paper (Larseti *in* Dansk Bot. Ark. 27: 46, 1963) the cytology of the genus *AmorpkopkaUvs* was discussed. It was here stressed that our knowledge does not yet allow too far reaching conclusions, but two secondary basic numbers seem to exist x_1 = 13 and 14. Recently Marchant *{in* Kew Bull. 25; 323, 1971) added chromosome numbers for

several species of *Amorphophallus* not counted before, most of these had 2n = 26. In *A. campanulatus* from India he counted 2n = 28. Earlier 26 and 28 have been counted. It seems that the sections *Rapyogkos* and *Cundarum* have a more original cytological pattern than the other sections (cf. Larsen l.c.).

Fig. 2. 2 mptaphase plates from foot tips.

A. dixenii fita well into this pattern. In several good metaphase plates from root tips 2n = 28 was counted (Fig. 2). The morphology of the chromosomes corresponds to what has been found earlier.

The author is indebted to Mr. Tyge Christensen for latinizing the diagnosis.

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A REVISION OF PLETHIANDRA (MBLASTOMATACEAE)

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ABSTRACT

Seven species are dtscribed and a key to the species is presented. The genus is recorded foe the first time from Central Sumatra and this record is an extension of its generic distribution, known previously from Borneo and Malaya. *Plethiandra acaminata* Merr. and *Plethiandra aahebii* Burkill are reduced to synonymy and the following new combinations are proposed: *Plethiandra robuata* (Cogn.l Nayar, *Plethiandra seesiliflora* (Cogn.) Merr. var. *«**H« <Stapf) Nayar.

ABSTKAK

Pertelaan dan kunci detcrminasi untuk membeda-bedakan tlljuh jenis *Plethiandra* disajikan. Marga ini dilaporkan untuk pertama kali dari Sumatra Tcngah, yang memperluas daerah penyebarannya Eebab sebelumnya hanya diketahui tumbuh di Borneo dan Malaya. *Pletkiandra acuminata* Merr. dan *Plethiandra sahebii* Burkill diperlakukan sebagai sinonim jenis lain dan kombinasi baru *Plethiandra robvxta* (Cogn.) Nayar dan *Plethiandra sessiliflora* (Cogn.) Mcrr. var. *seesilis* (Stapf) Nayar telah diusulkan.

INTRODUCTION

J. D. Hooker founded the genus *Pletliituulra* in 1865 on the basis of *methiandra motleyi* from Labuan (Borneo). He placed it in the tribe jjlstronieae immediately next to the genus *Kibansia.* Baillon (Nat. Hist. PI. 7: 63. 1881), Cogniaus (1391) and Krasser (1893) followed Hooker f. in its assignment.

The genus was described again as *Medinillopsis* by Cogniaux (1891) with two species *MedinUlopsis beccwriana* from Sarawak and *Medinillopsis sessiliflora* from Singapore, both baaed upon Beccari's collections. In 1895 Stapf noted that Coguiaux's *Medinillopsis* matched perfectly with Hooker's genus *Plethiandra* and he suggested the reduction of the genus *Medinillopsis.* Although Stapf and later on Burkill (1917) suggested this, it was left to Merrill *(in* Journ. Roy. As. Soc. Straits Spec. No. 449, 1921) to make the new combinations in the genus *Pletkiandra.*

Stapf in 1894 *(in* Trans. Linn. Soc. II, 4: 163, 1894) after adding a new species *P. hookeri* noted the correct systematic position

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