

UNIVERSITY OF COPENHAGEN



Phylogeny of selected *Cryptocoryne* species in Malaysia based on 5' trnK sequence variation of chloroplast DNA

Sofiman Othman, Ahmad; Jacobsen, Niels

Published in:
Systematics 2008, Programme and Abstracts

Publication date:
2008

Document version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Sofiman Othman, A., & Jacobsen, N. (2008). Phylogeny of selected *Cryptocoryne* species in Malaysia based on 5' trnK sequence variation of chloroplast DNA. In *Systematics 2008, Programme and Abstracts* (pp. 324)

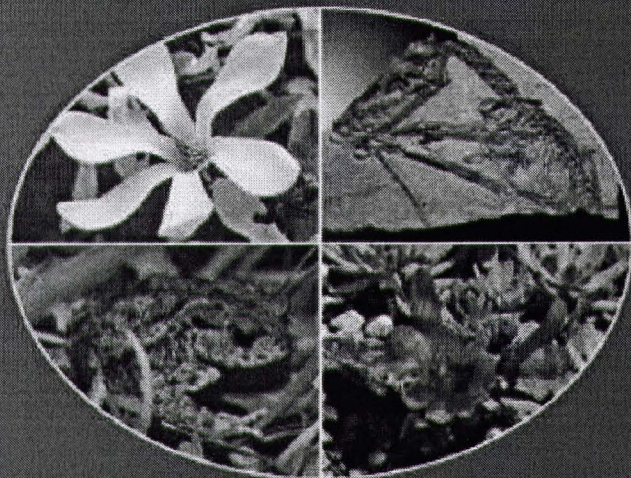
Systematics 2008

Programme and Abstracts

Göttingen 7-11 April 2008

10th Annual Meeting of the
Gesellschaft für Biologische Systematik

18th International Symposium
„Biodiversity and Evolutionary Biology“
of the German Botanical Society



Edited by S. Robert Gradstein, Simone Klatt, Felix Normann,
Patrick Weigelt, Rainer Willmann and Rosemary Wilson



Universitätsverlag Göttingen

Phylogeny of selected *Cryptocoryne* species in Malaysia based on 5' trnK sequence variation of chloroplast DNA¹Ahmad Sofiman Othman, ²Niels Jacobsen¹School of Biological Sciences, Universiti Sains Malaysia, 11800 Penang, Malaysia. ²Dept. of Ecology, Faculty of Life Sciences, University of Copenhagen, Rolighedsvej 21, 1958 Frederiksberg, Copenhagen, Denmark.

Cryptocoryne is an aquatic plant genus within the family Araceae. The genus is native to south east Asia which includes both the Malay Peninsular and the island of Borneo. Several species are widely exploited as foliage plants in tropical fish aquaria. A phylogeny was constructed using sequence variation of the 5' trnK intron including a partial of the matK region of chloroplast (cp) DNA to elucidate species relationships among representative of *Cryptocoryne* species present in both the Malay Peninsular and Borneo. Within the *Cryptocoryne* species surveyed, the 5' trnK intron ranged from 679 to 691 base pairs (bp) while the partial matK region sequenced ranged from 157 to 164 bp. The cpDNA phylogeny provides a strong relationship between *C. elliptica* and *C. schubzei*. The molecular data also grouped *C. xpurpurea* (a putative hybrid species) and *C. griffithii* (a putative parent of *C. xpurpurea*) together within a subclade but are distantly apart from *C. cordata* (the other putative parent). This suggests that *C. xpurpurea* might be of hybrid origin having had *C. griffithii* as the maternal parent. Overall the cpDNA phylogeny however, did not provide sufficient resolution of species relationships among *Cryptocoryne* species used in this study.