



Universiteit
Leiden
The Netherlands

The rise and fall of Sauropus (Phyllanthaceae) : a molecular phylogenetic analysis of Sauropus and allies

Pruesapan, K.

Citation

Pruesapan, K. (2010, November 23). *The rise and fall of Sauropus (Phyllanthaceae) : a molecular phylogenetic analysis of Sauropus and allies*. Retrieved from <https://hdl.handle.net/1887/16170>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/16170>

Note: To cite this publication please use the final published version (if applicable).

The rise and fall of *Sauropus* (Phyllanthaceae)

A molecular phylogenetic analysis of *Sauropus* and allies

PROEFSCHRIFT

ter verkrijging van

de graad van Doctor aan de Universiteit Leiden,

op gezag van Rector Magnificus prof. mr. P.F. van der Heijden,

volgens besluit van het College voor Promoties

te verdedigen op dinsdag 23 november 2010

klokke 15.00 uur

door

KANCHANA PRUESAPAN

Geboren te Phatthalung (Thailand) in 1973

Promotiecommissie

Promotores: Prof.dr. E.F. Smets
Prof.dr. P.C. van Welzen

Promotiecommissie: Prof.dr. P. Baas
Prof.dr. M.S.M. Sosef (Wageningen Universiteit)
Prof.dr. J.H.A. van Konijnenburg-van Cittert
Dr. H.-J. Esser (Botanische Staatssammlung München)
Dr. M.C. Roos

This PhD project was financial supported by:

Agricultural Research Development Agency (Public Organization), Thailand

The rise and fall of *Sauropus* (Phyllanthaceae)

A molecular phylogenetic analysis of *Sauropus* and allies

Kanchana Pruesapan

**Netherlands Centre for Biodiversity Naturalis
(section National Herbarium of the Netherlands),
Leiden University branch**

2010

Pruesapan, K.

The rise and fall of *Sauropus* (Phyllanthaceae): A molecular phylogenetic analysis of *Sauropus* and allies.

ISBN: 978-90-9025764-8

NUR: 910

Printing: GVO grafisch bedrijf b.v. | Ponsen en Looijen

Cover: *Sauropus thyrsiflorus* Welzen

Photos by P. Phonsena

Design by K. Pruesapan & Y. Sirichamorn

Chapter 2: Reprinted from *Annals of Botany* 102, 6. K. Pruesapan, I.R.H. Telford, J.J. Bruhl & P.C. van Welzen, Delimitation of *Sauropus* (Phyllanthaceae) based on plastid *matK* and nuclear ribosomal ITS DNA sequence data, 1007—1018, © 2008, with permission of Oxford University Press;

Chapter 3: Submitted to *Australian Systematic Botany*;

Chapter 4: In review for *Taxon*;

Chapter 5: In preparation for *Journal of Biogeography*;

Remainder of the thesis: © 2010, Netherlands Centre for Biodiversity Naturalis (section NHN), Leiden University branch.

The layout of the separate chapters may differ from the layout used in the original publication.

No part of this publication, apart from bibliographic data and brief quotations in critical reviews, may be reproduced, re-recorded or published in any form, including print, photocopy, microform, electronic or electromagnetic record without written permission by the publishers.

Contents

Chapter 1 General Introduction	1
Chapter 2 Delimitation of <i>Sauropus</i> (Phyllanthaceae) based on plastid <i>matK</i> and nuclear ribosomal ITS DNA sequence data	9
Chapter 3 Phylogenetic reconstruction in <i>Breynia</i> , <i>Sauropus</i> and related genera (Phyllanthaceae) based on noncoding chloroplast and nuclear DNA sequences	29
Chapter 4 <i>Sauropus</i> transferred to <i>Breynia</i> (Phyllanthaceae) based on molecular and morphological phylogenetic reconstruction	55
Chapter 5 Historical biogeography of <i>Sauropus/Breynia</i> (Phyllanthaceae)	101
Chapter 6 Summary and Conclusions	115
Samenvatting en Conclusies	121
References	127
Curriculum Vitae	139
Acknowledgements	141

