

**TAXONOMY OF SOME FIGS AND THEIR  
INTERACTIONS WITH POLLINATORS**

**YAOWANIT TARACHAI**

**DOCTOR OF PHILOSOPHY  
IN BIODIVERSITY AND ETHNOBIOLOGY**

**THE GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY  
SEPTEMBER 2008**

**TAXONOMY OF SOME FIGS AND THEIR  
INTERACTIONS WITH POLLINATORS**

**YAOWANIT TARACHAI**

**A THESIS SUBMITTED TO THE GRADUATE SCHOOL IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
DOCTOR OF PHILOSOPHY  
IN BIODIVERSITY AND ETHNOBIOLOGY**

**THE GRADUATE SCHOOL  
CHIANG MAI UNIVERSITY**

# TAXONOMY OF SOME FIGS AND THEIR INTERACTIONS WITH POLLINATORS

YAOWANIT TARACHAI

THIS THESIS HAS BEEN APPROVED  
TO BE A PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY  
IN BIODIVERSITY AND ETHNOBIOLOGY

## EXAMINING COMMITTEE

*P. Chantaramongkol*.....CHAIRPERSON  
Assoc. Prof. Dr. Porntip Chantaramongkol

*C. Trisonthi*.....MEMBER  
Assoc. Prof. Dr. Chusie Trisonthi

*P. Sukumalanand*.....MEMBER  
Mr. Prachaval Sukumalanand

*Prasit W.*.....MEMBER  
Asst. Prof. Dr. Prasit Wangpakattanawong

*Prachaya Srisanga*.....MEMBER  
Dr. Prachaya Srisanga

15 September 2008  
© Copyright by Chiang Mai University

## ACKNOWLEDGEMENT

I am grateful to my thesis advisor: Assoc. Prof. Dr. Chusie Trisonthi, Mr. Prachaval Sukumalanand and Asst. Prof. Dr. Prasit Wangpakapattanawong for their kind guidance, support and encouragement throughout the period of this study. I am grateful to my examining committee: Assoc. Prof. Dr. Porntip Chantaramongkol and Dr. Prachaya Srisanga for their kind suggestion and comments. Sincere thanks and appreciation is also addressed to Dr. Stephen G. Compton for his kind guidance, support and encouragement throughout the period of this study both in Thailand and in University of Leeds, UK; Asst. Prof. Paritat Trisonthi for his valuable advice.

I would like to thank the Commission on Higher Education of Thailand and Maejo University for scholarship and additional support to study in University of Leeds, UK; Graduate School of Chiang Mai University, Chiang Mai, Thailand; the TRF/BIOTEC Special Program for Biodiversity Research and Training grant T\_148011 for additional study grant; and Conservation and Usage of Biodiversity Project, Chiang Mai University, additional study grant.

Sincere thanks and appreciation are also addressed to specialists for their kind suggestion and checking of specimens: Dr. Cornelis Chr. Berg, specialist of *Ficus* taxonomy, Netherland; Dr. Finn Kejellberg, Centre National de la Recherche Scientifique (CNRS), Montpellier, France; Dr. Jean-Yves Rasplus, Entomologiste INRA, Centre de la Biologie et de Gestion des Populations Campus International de Baillarguet, France; Professor Dr. Jin Chen, Xishuangbanna Tropical Botanical Garden Chinese Academy of Sciences, Yunnan, China; Dr. Hans Bänziger, specialist of insect and pollination, faculty of Agriculture, Chiang Mai University.

I would like to thank the staff of Biology Department, Chiang Mai University; Forest Herbarium Bangkok (BKF); Chiang Mai University Herbarium, Chiang Mai (CMU); Xishuangbanna Tropical Botanical Garden Herbarium, Xishuangbanna, China (XTBG); Queen Sirikit Botanic Garden Herbarium, Chiang Mai (QBG).

Head of Inthanon Research Station of Royal Project Foundation, for field research assistance. Dr. Angkhana Inta for her help in various ways.

iv

I would like to thank my colleagues of the faculty of Architecture and environmental design, Maejo University, for their kind help and encouragement.

Finally, I thank Prapakorn Tarachai and Kornkamol Tarachai, my family; my mother for their encouragement and support for this study.

Yaowanit Tarachai