

ACKNOWLEDGEMENTS

I would like to express my gratitude to my thesis advisor, Assoc. Prof. Dr. Boongea Vajarasathira, for her advice and guidance throughout this thesis study and for her comment and improvement of this manuscript.

I am also greatly indebted to my thesis committee members, Mrs. Porntip Visarathanonth, Assoc. Prof. Dr. Ngamtip Poovarodom, and Dr. Surachate Jamornmarn for their constructive comment and being supportive. I am grateful to Assoc. Prof. Dr. Mingkwan Mingmuang, the Graduate School representative for her suggestion and kindness.

I am thankful to Mr. Cherapong Getelekha for his assistance in the experiment and to Miss Siriwan Jinachai for her advice in the experimental technique. Special thanks are extended to all my friends whose names have not been cited for encouragement and assistance throughout my study.

I sincerely thank Graduate School and Kasetsart University Research and Development Institute (KURDI) for the financial support. I also thank the faculty and staffs of the Zoology Department for all their help and facilitation.

Finally, I especially thank my parents and my older sisters for everything throughout my life, for their inspiration and for their never-ending support during the period of my study.

Nisakorn Intiam
September, 2006