PREFACE AND ACKNOWLEDGMENT

First and foremost, I express my sincere and deep gratitude to my research guide, Dr. Benny P.J., Reader, Department of Zoology, St. Thomas College Palai for the invaluable guidance, motivation and inspiration given to me throughout the study, without which this Ph.D thesis would not have been possible. He is not merely a guide to me, but a real 'Guru'.

I am extremely grateful to Rev. Dr. Mathew John Kokkat, former Principal, St. Thomas College Palai, who has given me the admission, support and facilities for the Ph.D course. I am also grateful to Dr. K.K. Jose, the present Principal, who is my well-wisher, for giving a help officially and morally.

Words are not enough to express my thanks to Prof. Baby Augustine, Head of the Department of Zoology, St. Thomas College Palai, who always showed great interest in my research work by providing essential facilities, inspiration and support throughout the study period.

I am grateful to Dr. Sarala Gopalakrishnan, Head of the Department of Microbiology, St. Pius X College, Rajapuram, Kasaragod who has given invaluable help at various stages of the research work.
Dr. Sarala Gopalakrishnan, who was the first research student of my guide had supported and inspired me based on her research experiences.

I am deeply thankful to Dr. Sunny Kuriakose and his research student Miss. Cincy George, for their invaluable help for the interpretation of spectroscopic data, which was inevitable for the fruit fullness of this work.

Dr. Toji Thomas, Lecturer, Department of Botany, St. Thomas College Palai, has put great, valuable efforts for the taxonomic identification of selected fruits. I am indebted to him.

I express my sincere gratitude to Dr. N. Sasidharan, Scientist, Kerala Forest Research Institute, Peechi and Dr. Jomy Augustine, Head of the Department of Botany, St. Thomas College Palai for giving immense help to identify the taxonomic position of fruit of Flacourtia inermis.

I gratefully acknowledge Dr. Prakashkumar B, former Head of the Department of Biotechnology and Applied Microbiology, St. Thomas College Palai and his colleagues for their support and help given to me.

I am thankful to Dr. Thomas Abraham, Head of the Department of Microbiology, Doctors Research Diagnostic Centre, Kottayam, and his staff for providing clinical bacterial strains.
I am also grateful to Dr. Punnen Kurian, Mr. Manuel Thomas and other members of the Tropical Institute of Ecological Sciences for their valuable help given for antifungal studies.

Institutes like SAIF- IIT Madras, STIC- Cochin University, and School of Chemical Sciences- M.G.University Kottayam have given facilities for spectroscopic studies. I extend my deep gratitude to the technicians and staff of the above institutes.

I always remember and express my sincere thanks to research friends, Mr. Bijesh P.P., Mr. Sreejesh K.R., Mr. Subash N., Mr. Bince Mani, Mr. Shal Chandran of St. Thomas College Palai and Miss. Elizabeth C.V. of Cochin University of Science and Technology for giving me inspiration and assistance when required.

I extend my special gratitude to Mr. Sunil C. Vattappalam, Research Scholar in Physics, St. Thomas College Palai, for his valuable help and support.

I take this opportunity to thank Mr. M.P. Thomas, Mr. Rudolf Thomas and Mr. C.T. Jose, Lab Assistants, St. Thomas College Palai and all others who are directly or indirectly involved for fulfilling my research work.
I am thankful to my parents, A.T.George and Chinnamma, brother Mr.shinu and sister-in-law Mrs.Cincila and other family members, for their support and inspiration given throughout the study.

Above all, I must thank 'Almighty God' for the immeasurable blessings given to me for successful completion of this research work.

SHIBUMON GEORGE