ACKNOWLEDGEMENT
ACKNOWLEDGEMENT

Above all credentials, I owe my whole-hearted thanks to the Lord Almighty, for his abundant blessings.

I express my deep sense of gratitude and sincere thanks to my Guide Dr. K. Murugan, M.Sc., M.Phil., Ph.D., Dip. Ent., Reader, Department of Zoology, Bharathiar University, Coimbatore for suggesting a problem having a global utilization with its multidisciplinary approach. I am profoundly indebted for his valuable guidance, spontaneous help and concrete suggestions extended to me throughout the period of investigation.

I have great pleasure in expressing my gratitude to Dr. G. Vanithakumari, M.Sc., Ph.D., F.A.S.I., F.I.C.S., Professor and Head, Department of Zoology, Bharathiar University, Coimbatore for providing all facilities to carry out my work successfully.

I am extremely indebted to convey my bouquet of thanks to Dr. K. Sasikala, M.Sc., Ph.D, Professor, Department of Zoology, Bharathiar University, Coimbatore, for guiding and supporting me with related discussions regarding the work.

I wish to avail this opportunity to place on accord with deep sense of gratitude to Dr. M. Ramesh, Lecturer, Department of Zoology, Bharathiar University, Coimbatore, whose personal case support had always been a great source of encouragement during the period of my study.

I am greatly indebted to lecturers Dr. V. Ramasubramanian and Dr. P. Saravanabhawan, Department of Zoology, Bharathiar University, Coimbatore, for their keen interest in this work.

I also wish to express my thanks to Dr. C. Gunasekaran and Mr. V. Maruthappan for the technical assistance rendered during the course of study,
and also thanks to Mrs. V. Pushpavalli, Asst. Section Officer, Mr. A. Senthil Kumaresan and Mr. N. Ganesan.

I owe special thanks to my colleagues, Ms. L. Rajalakshmi, Mr. P. Murugan and Mr. P. Thiyagarajan for their help during the course of study.

My thanks are also due to my juniors Mr. S. Kamalakannan, Mr. N. Kamaladasan, Ms. P. Premalatha, Mrs. R. Anuradha, Ms. R. Umadevi, Mrs. R. Radha and Mr. S. Rameshkumar for their timely help.

I also express my deep emotions to my parents Mr. M. Abdul Muthaleef, Mrs. Sulthanammal and my brothers Mr. A. Bava Bahrudeen and Mr. A. Shaik Dawood for their encouragement towards completion of this work.

I owe my lovable thanks to my beloved friend Mr. C. Praveen Rajneesh and his family members for their tireless support, suggestions, continuous encouragement and inestimable help throughout this research work.

I reserve a very special thanks to my friend Mr. C. Sivakumar and his family members for their encouragement and timely help extended to me whenever is needed.

I extend my heartfelt thanks to Mr. L. Manimuthu, Research Associate, Department of Seed Science, Institute of Forest Genetics and Tree Breeding, Coimbatore for his support at the time of seed collection.

It is my bounden duty to thank the authorities of the Bharathiar University and Defence Research Laboratory (DRL), Tezpur, Assam for financial support in the form of a Junior Research Fellowship, during the tenure of which this investigation was carried out.

I thank the authors Dr. Shigoe Kondo, Aichi Medical University School of Medicine, Japan; Dr. Wenqing Zhang, Sun-Yat Sen (Zhongshan) University, China; Dr. Young-Joon Ahn, Seoul National University, Republic of Korea; Dr. Mir S. Mulla, University of California, USA; Dr. Donn T. Johnson, University of Arkansas, USA; Dr. Howard S. Ginsberg, Rutgers University, USA; Dr. William E. Walton, University
of California, USA; **Dr. Brian H. Kay**, University of Queensland Medical School, Australia; **Dr. J.E. Cilek**, Florida A. & M. University, USA; **Dr. Wayne J. Crans**, Rutgers the State University of NJ, USA; **Dr. Anna-Bella Failloux**, Institute Pasteur, France; **Dr. Aurea Maria Lage De Moraes**, Fundacao Oswaldo Cruz Instituto, Brazil; **Dr. Yung-Ching Liu**, Veterans General Hospital- Kaohsiung, Taiwan; **Dr. Kenneth J. Kingsley**, SWCA Environmental Consultants, USA; **Dr. Jean-Philippe David**, Liverpool School of Tropical Medicine, UK and **Dr. Peter F. Billingsley**, University of Alberdeen, UK for their support in the form of providing reprints and valuable suggestions for the successful outcome of this work.