ACKNOWLEDGEMENT

It is with great honour, I express my sincere thanks and gratitude to Dr. S. Janarthanan, Professor, Department of Zoology, University of Madras, Guindy Campus, Chennai, for providing me an opportunity to do my doctoral research programme under his guidance. His fabulous support enabled me to overcome many difficulties in my career. His unbiased consideration, affection and encouragement helped me to break through the obstacles and reach my end. At this moment, I consecrate wholehearted gratitude towards my guide who is also my Leader, Educator and Supervisor.

I am very grateful to Prof. M. Arumugam, former Head, Department of Zoology, University of Madras, Guindy Campus, Chennai, for providing the laboratory facilities to carry out the research work and also for his infinite suggestions and encouragement throughout my research programme.

I am very grateful to Prof. P. Mullainadhan, former Professor, Department of Zoology, University of Madras, Guindy Campus, Chennai who with kindness and care provided me academic support with inspiration and helped me to execute the final form of my research work.

I am thankful to Prof. R. Ramaniba, Head, Department of Zoology, University of Madras, Guindy Campus, Chennai, for her help and encouragement throughout my research work.

I would like to thank my doctoral committee member, Prof. K. Balasubramanian, Head, Department of Endocrinology, University of Madras, Taramani Campus, Chennai for his valuable suggestions and critical comments during the course of research work.

I am immensely grateful to Dr. H. Devaraj, UGC-BSR Faculty, formerly Professor, former Vice-Chairman, UGC, New Delhi and Dr. N. Munuswamy, UGC-BSR Faculty, formerly Professor, Dr. C. Arulvasu, Dr. R. Manikandan, Dr. M. Jeyakumar and Dr. R. Shanthi, Assistant Professors, Department of Zoology, University of Madras, for their help, suggestions and critical comments during the course of my research work.

I am very much thankful to Dr. K. Kathiravan, Assistant Professor (S.G.), Department of Biotechnology and Dr. P. Palani, Assistant Professor (S.G.), CAS in Botany, University of Madras, Guindy Campus, Chennai, for their timely help and encouragement.

I am also grateful to Dr. K. G. Sivaramakrisnan former Head, Department of Zoology, The Madura College, Madurai, and Dr. C. Selvakumar, Post-doctoral Fellow, Zoological survey of India, Kolkata, for their encouragement and support.
My special thanks are due to my seniors, Dr. V. Veeramani and Dr. S. Sakthivelkumar, for their support, encouragement, contributions in sharing the knowledge and help in executing the techniques especially in column chromatography.

I would like to thank all my laboratory colleagues, Mr. P. Murali, Mr. A. Ganesh, Mrs. S. Chitra, Mr. K. Tamilarasan, Ms. K. Hilda, Mr. S. Bhuvaragavan, Mr. C. Arokiyaraj, Ms. K. Nithya and Ms. C. Karthika, Unit of Entomology, Department of Zoology, University of Madras, Guindy Campus, Chennai for their timely help in many ways during the course of my research work.

I also thank, Dr. M. Sakthivel, Mr. K. Sunilkumar Mr. S. Karthick, Mr. T. Sakthivel, Mr. G. Dhanasekaran, Ms. M. Hemavathi, Mr. K. Velayutham, Mr. N. Selvakumar, Mr. K. Dhanasekar, Mr. G. Karunasagaran and K. Rajendran for their support and encouragement.

Last, but not the least, my deepest thanks to my beloved parents Mr. C. Paulchamy, Mrs. P. Annathai and my brothers Mr. P. Inbaraj, Indian army, Dr. P. Yoga, Assistant Professor, Alagappa University College of Physical Education, Karaikudi and Dr. P. Chinnamuthu, Assistant Professor, National Institute of Technology, Nagaland, for their patience and perseverance in completion of this research work. Without their help, I wouldn’t be able to complete my research work.

I gratefully acknowledge the financial support provided by University Grants Commission (UGC), New Delhi through “Centre with Potential for Excellence in Particular Area (CPEPA)” programme with the award of a “Project Fellow” during the course of my work.

(P. Ramaraj)