Acknowledgement

I take this opportunity to pay my sincere gratitude to my Supervisor, Prof. Abhik Gupta (Dean), Department of Ecology and Environmental Sciences, Assam University, Silchar, for his valuable instructions and sincere guidance. I am also thankful to Dr. Saibal Sen Gupta (Co-Supervisor), Department of Zoology, Arya Vidya Peeth College, Guwahati, for his kind help and guidance.

I would like to offer my heartiest thanks and sincere respect to Dr. (Mrs) Maytreyee Das, (Retd. Professor), Department of Zoology, Guwahati University, for her constant inspiration and giving me the valuable suggestion for completing the research work.

I am also grateful to Dr. Ashesh Das (Ex-HOD) and Prof. Biman Kumar Dutta (HOD), Department of Ecology and Environmental Sciences, Assam University, Silchar, for providing me the requisite facilities required in the laboratory. I also thank the other teaching faculty members of the same department for their co-operation.

It will be injustice for me if I do not pay thankful acknowledgement to the authorities of the Deptt. of Pathology and Biochemistry of Silchar Medical College, who kindly allowed me to complete the histological and biochemical part of my research work in their respective laboratories.

I convey my sincere thankfulness especially to Prof. Sekhar Chakraborty, Prof. Debashis Dutta, Dr. Sumita Dutta, of the Pathology Deptt. and Dr. Anita Sinha of Biochemistry Deptt. of Silchar Medical College for their kind help. I would like to offer thanks to the
technicians of both the departments for their co-operation when I worked in Silchar Medical College laboratory.

My acknowledgement goes to Dr. Dibyojyoti Bhattacharjee, (Lecturer), Deptt. of Statistics, Guwahati University, for helping me to carry out all statistical analysis for my research work. I also thank Dr. Binode Baruah, Deptt. of Zoology, Cotton College, Guwahati, for his cooperation in carrying out a part of my research work.

I would also like to pay my sincere gratitude to Dr. N. N. Saha, Ex-Senior Scientist, (Entomology), R.A.R.S. Karimganj, Assam Agricultural University, and Chief Training Organiser, Krishi Vigyan Kendra, Arunachal, Cachar, Assam Agricultural University, Jorhat.

I am very much thankful to Scientist, Tea research centre (Toklai), Silcoorie, Cachar, Assam, for providing the meteorological data for the year 2003-2005.

I also take this opportunity to thank all the officials of Agriculture Deptt., Pesticide Dealers, Pesticide wholesellers and the farmers of the study sites from the three districts of Barak Valley for the supplement of essential information on the consumption patterns and rates of different pesticides use in the paddy fields of Barak Valley.

I thank Dr. Debraj Dey and Debotosh Paul of Silchar Medical College, Silchar, and Mr. Sagnik Choudhury, Deptt. of Ecology and Environmental Sciences, Assam University, Silchar, for facilitating the process of Microphotography.

I would like to offer thanks to Mr. Shovan Dutta Gupta and other staff of the Department of Ecology and Environmental Science, Assam University, Silchar, who helped me in many ways.
I wish to express my appreciation and gratitude to UGC New Delhi, for research grant under Faculty Improvement Programme during Xth plan period. For this purpose special thanks goes to Dr. S. C. Roy (Education Office, UGC, North Eastern Regional Office, Guwahati) and Dr. A. K. Malque (CDC, Assam University, Silchar). Moreover, I am indebted to the Principal, G. C. College, Cachar, Assam, for granting study leave to join Ph D. course work. I also thank Mr. Sanjay Kanti Das, who took strain for typing and printing the thesis.

Last but not the least, my thanks go to my husband, Mr. Deepak Kumar Kundu (Deputy General Manager), Assam State Electricity Board, Silchar, and my family members, for their constant help, support and encouragement without which I would not have been be able to finish this Ph D. work.

Chhaya Roy (Kundu)