Acknowledgments

It would have been unlikely to complete this doctoral thesis without the help and support of all the special people around me; unfortunately it has been possible to mention only some people here.

First of all I would like to sincerely thank my supervisor, Dr. Parthiba Basu, Associate Professor, Department of Zoology, University of Calcutta, not only for his theoretical and technical guidance throughout the last five years but also for his constant encouragement, motivation and support. Without his advice and knowledge of ecology, it would have been impossible for me to carry out this work. Thank you Sir for giving me the opportunity to work under your guidance and this is my honor to submit my Doctoral thesis under your supervision.

I express my sincere gratitude to my co-guide Mr. Tapan Saha, Senior Scientist, Institute of Environmental Studies and Wetland Management, Kolkata, for his precious technical guidance and supporting my long and hard field work with immense enthusiasm. Thank you sir for your enormous assistance in every part of my work and helping me to make it successful.

The indispensable financial support provided by the Department of Environment, Government of West Bengal, India ['EN/ P/ 1858/ T-VIII-2/ 004/ 2009'] is greatly acknowledged.

I would always be indebted to my field assistants Sanghamitra Dhar, Suman Ghosh and Amarendra Patro for their tremendous involvement to complete the project work.
I greatly appreciate my friends Suman Adhikary, Tamalika Mazumdar, Dr. Sudipta Kumar Maiti, Dr. Subhasis Sarkar and Dr. Subhayan Dutta who were my constant companion during the three years of my field study. Without them, those tough days in such an isolated, hostile wetlands system would not have been this joyous.

I am really grateful to Shirsendu Ghosh, Anirban Dasgupta, Jayprakash Singh, Sourav Chakraborty, Anindya Halder and Anirudha Sen for their continual effort in the chemical and botanical analyses of the water and soil samples.

I personally want to thank Dr. Soumik Chatterjee for his valuable suggestions and unconditional help in statistical analysis and also for his precious comments to compose the whole thesis.

I want to thank Arnob Chatterjee, Debaditya Kumar and Supratim Laha for their unconditional help to compose the picture plates for this thesis.

I would like to thank all my lab mates, Dr. Rahi Soren, Nitu Sinha, Arpan Kumar Parui, Ritam Bhattacharya, Dr. Priyadarshini Chakraborty Basu, Pushan Chakraborty, Aditi Dutta and Deyatima Ghosh for their support, suggestions and unconditional love. Their presence makes our lab a complete research unit and more of a family.

I thank the present and all the former Heads of the Department of Zoology, University of Calcutta, for allowing me to use the infrastructure facilities during my working tenure.

I thank the present and the former Head of the Department of Environmental Science, University of Calcutta, Dr. Punarbasu Chaudhuri and Dr. Aniruddha Mukhopadhyay for their valuable guidance.
I express my sincere gratitude to the present and former Conveners of Ph.D committee, Department of Environmental Science, University of Calcutta, for their suggestions and astutely arranging the procedures during my work. I express my sincere gratitude to all the respected teachers in the department for their support and suggestions.

This thesis would not be doable without the unconditional love and support of my parents. I am gratified to them for encouraging me to explore the magnificence of nature and science. I am grateful to them for their love of academics and believe in me.

Sarmistha Saha