Acknowledgements

I express my indebtedness to Dr. A. R. Khuda-Bukhsh, Reader, Department of Zoology, who kindly suggested the problem to me, extended all help whenever required and imbibed a spirit of dynamic enthusiasm and inspiration in me throughout the period of my work.

I owe a deep sense of gratitude to Prof. G. K. Manna and Prof. A. K. Bose for their kind inspirations.

I am grateful to the respective Heads of the Department of Zoology for providing laboratory facilities.

I am highly thankful to the Ministry of Environment and Forests, Govt. of India, New Delhi for providing me some financial assistance to carry out the present work.

Grateful acknowledgements are made to the Directors and staff of Central Institute of Jute and Allied Fibres, Nilgunge; Institute of Health and Hygiene, Calcutta; the British Council Library, Calcutta; Indian Institute of Chemical Biology, Calcutta and CICFRI, Barrackpore for extending me library facilities whenever needed.

The author is immensely grateful to the Director, all staff members and fishermen of Kakdwip Brackishwater Aquaculture (Central Institute of Brackishwater Aquaculture), Kakdwip for their help in collection of fish materials and providing laboratory facilities during the field work.

I express my sincere gratitude to Prof. S.K. Konar, Prof. B.B. Jana, Dr. S. N. Kundu, Reader, Dr. C. R. Sahu, Reader, and Dr. A. Kaviraj, Reader, Department of Zoology for their kind encouragements.

I express my indebtedness to Dr. (Mrs.) A. Khuda-Bukhsh, for her encouragements and co-operation throughout the period of my research.

The kind co-operation of research scholars, particularly, Mrs. Kakali Mitra and Md. Mostaq Ahammad during the tenure of my research is gratefully acknowledged.
Sincere thanks are due to my senior research colleagues Dr. B. K. Padhi, Dr. (Mrs.) Sarmistha Banik, Dr. (Mrs.) Swapna Datta, Dr. (Mrs.) Chandrani Roy, Dr. (Mrs.) Sudharani Tiwary and Dr. (Mrs.) Chandana Chakrabarti for various help and encouragements.

Special thanks are due to my laboratory colleagues, Mr. Jayanta Kumar Das, Mr. Bibhas Guha, Ms. Papri Chandra and Mr. Surjyo Jyoti Biswas who extended their helping hands during the entire tenure of the work.

Thanks are also due to my colleagues Mr. Sudipta Chanda, Mr. Koushik Sengupta, Mr. Palash Chakrabarti, Mr. Maloy Khalua, Mr. Projjal Roy, Mrs. Susmita Ganguly, Ms. Saswati Chakrabarti, Ms. Sova Patra and Ms. Arpita Pal for their kind co-operations.

Sincere thanks are due to Dr. Ranajit Karmakar for his valuable suggestions and inspiration.

A special word of thanks to Dr. Kartik Chandra Mohanty, for his valuable suggestions and help particularly in photography.

I owe a special word of thanks to my friend and colleague, Smt. Jayati Chakrabarti, who had been my constant help and inspiration.

I would also like to thank Mr. Rajkumar Sarkar for his help in the collection of fish specimens and for various services throughout the course of investigation.

A special word of thanks to my friends Mr. Koushik Dey, Mr. Subhendu Mallick, Mr. Indranil Kundu, Mr. Bivas Pandit, Mr. Saibal Bandyopadhyay and Mr. Tanmoy Mukherjee for their lively company and inspiration.

Finally, no words can express the sense of gratitude I owe to my beloved parents and brother without whose blessings, forbearance and constant inspiration it would not have been possible to complete the piece of work and bring out this thesis.

(PALASH MALLICK)