

## "ACKNOWLEDGEMENT"

**"Gurur Brahma, Gurur Vishnu, Gurudevo, Maheshwaraha,  
Guru Sakchat para Brahma, Tasmaishri Guruvenamaha" !**

In conformity with the above hymn of "THE VEDAS" I, at first, from the core of my heart, do extol with boundless regards to my revered teacher and supervisor Dr.C.S.Chakraborty, Reader, Department of Zoology, University of North Bengal, Siliguri (W.B.) and prostrate at his lotus feet for suggesting the problem, for unflinching encouragement and supervision throughout the tenure of this work.

I express my deep sense of gratitudes to Prof.R.G.Mukerjee, Vice-Chancellor, North Bengal University, Siliguri, Prof. B.Bhattacharya, Dean, Faculty of Science and Medicine and Dr.T.K.Chatterjee, Registrar for providing me an opportunity and lot of facilities in doing my work.

My humble regards are submitted to Dr.Ananda Mukhopadhyay, Head of the Department of Zoology, Prof. A.K.Chakraborty, Prof. B.C.Pal, Dr.D.C.Deb, Dr.J.Pal, Dr.T.K.Chaudhuri, Dr.S.Barat, Department of Zoology, for their valuable suggestions and encouragement during my working period at North Bengal University.

My hearty thanks and acknowledgements are paid to Dr.Samiran Chakraborty, Reader, Department of Zoology, Kalyani University, Dr. K.P. Dwivedi, Lecturer, Department of Zoology, C.M.D. P.G. College, Bilaspur (MP) for their time to time guidance and constant moral support.

I avail this opportunity to express my gratefulness to Shri Arun Ramanathan, IAS, Member Secretary, Central Silk Board, Ministry of Textiles, Govt. of India, for providing me an opportunity and permission to do my Ph.D. work.

My heartfelt indebtedness goes to Dr.B.Saratchandra, Director, CSR&TI, Berhampore for providing me all sorts of facilities, information and countless help in fulfilling my research work for this cause.

I am very much obliged to Dr.S.K.Sen, Joint Director(R&C) the over all in-charge of Sericulture Division of CSR&TI, Berhampore for his constant encouragement all through the period of work and for providing fabulous suggestions and ideas.

My deep regardful thanks and gratitudes are sincerely paid to Dr.A.K.Sengupta, Deputy Director, In-charge of Silkworm Breeding and Genetics Laboratory, CSR&TI, Berhampore (W.B.), for providing all sorts of information and valuable suggestions, lot many reference, literature, for helping in writing and correcting the manuscript and also for his constant encouragements at every step in fulfilling this work and time to time guidelines and sharing his experience. The constant showering of vast knowledge and in sharing experiences in the field of silkworm breeding by Dr.S.K.Das & Shri G.C.Roy Deputy Directors can not be forgotten and my hearty thanks are duly acknowledged.

I owe my thanks to my fraternal friend Dr.Basudev Ghosh, SRA, Silkworm & Breeding & Genetics Laboratory, CSR&TI, Berhampore for plinthing the work, doing mammoths' help in conducting the experiments, in literature review, and providing all sorts of valuable suggestions and taking pains for going through the manuscripts.

My sincere thanks and acknowledgements are paid to Dr.Alok Gautam & Dr.G.C.Setua, SROs, for their kind help in the perpetuation of my work.

Shri Nirvan Das, Assistant Director, Statistic, CSR&TI, is credited with due acknowledgement for his precious suggestion on the staistical aspects and time to time guidance.

My thanks and acknowledgements are due to Shri S.Manthira Moorthy, SRA, Silkworm Breeding and Genetics Laboratory, CSR&TI, for helping in compiling the references. Thanks are also due to Sri N.Krishnan, Sri Suresh Rai, SRAs, for their cooperation in the preparation of thesis. My sincere thanks are also due to Sri Nanda Kumar for his kind cooperation and help.

My hearty thanks are sincerely paid to S/Shri Shanti Saha, Dilip Sarkar, Madan Mohan Mukherjee, Mrs. Nita Mukherjee, Tapas Maitra, P.P.Dey, Fani Roy, Mohit Mondal, Khitish Mondal, Milan Mondal, Swapan Sarkar, Asim Ghosh, for their cooperation in conductig the rearings and in the preparation of thesis .

I also pay my sincere thanks to all the scientific, technical and time scale workers of SBG section for their kind cooperation and help .

For meticulous typing of the thesis my affectionate thanks are due to S/Sri G. K. Roy and Asim Roy Choudhary. The pains taken by Sri Debashish Ray for photography are unforgettable and my sincere thanks are due to him.

At last but not the least, my due acknowledgements and regardful indebtedness are due to my beloved and revered parents for providing me moral, physical, and financial supports all through the life.

Due thanks and acknowledgements are also credited to my wife for sacrificing her comforts and rendering her humble services all through the working span.

My deep sense of regards and hearty salutations are sincerely paid to the OMNI PRESENT ALMIGHTY and THE TIME FACTOR (KALACHAKRA) without whose favouritism nothing is possible in this world.



(P RAM TARAK RAO)