

Acknowledgments

Overwhelmed by the excitement of writing this section, which, in spite of its location, is attended to at the end of the writing process, I browsed through the acknowledgments of other dissertations. A vast majority of them impressed upon me the time-honoured tradition of beginning this section with the line, *This thesis would not have been possible without.....*; I was amused. It reminded me of a hackneyed line that the hero of mainstream Hindi movies almost unerringly blurts out to the heroine in the very precious moments between clobbering an entire army of hoodlums, *It is not possible for me to live without you!* However, even in the movies, the heroes seem to live on. Our *will to explore*, arguably, rivals our *will to exist*. It is quite possible that my Thesis would not come into existence under certain contingencies, but what could be a very probable one? I hope there weren't any.

However, *this* Thesis would not have been possible without the invaluable mentorship of Dr. Sudip Barat. Over the past six years of my interaction with him, I have developed a deep respect for his inhuman ability to tolerate harangues on unbaked (sometimes very crude) ideas, maintain an encouraging smile through out, and respond; *That's very interesting, but I think you are not eyeing the Noble Prize at present, simplify things a bit, may be you should try this out*. His favourite line with his students is, *Call me anytime!* – and he means it. He possesses the art of judging merits and demerits of a work, when coupled to his precision in formulating ideas on how to improve the experimental procedures and methodology, makes him a formidable thinker to challenge, and an enviable mentor to emulate. He encouraged me to discuss on various aspects of my research with other experts and develop a broad perspective. He is caring of his students' as a gardener is of his flowering plants, and his affection is untainted by superficiality.

I have gained enormously through my interaction with Prof. Bikash C. Pal. It was a trifle embarrassing to knock on his office door (till his retirement in June, 2005) because he was always so welcoming to his students; one could be assured to be offered his help – in one incident, he personally generated a sizable fund from the Centre for Life Sciences, North Bengal University (NBU), for purchasing some aquariums I would be needing for the behaviour experiments, although I was not his direct Scholar, and offered me his laboratory facilities to conduct the experiment. Conversations with him always crossed the allotted time. He would recollect his hard days of graduateship in the John Hopkins University and inspired me to control my frustration and concentrate on research and career building. His deep insight and unassuming knowledge in the field of animal-nature interactions and animal behaviour is an example that I have sought, for gentle inspiration, during those hard times.

Numerous informal discussions on my research with other zoologists at the Zoology Department, NBU, have been instrumental in my progress. The first person who comes to my mind is Prof. Debesh C. Deb. Since my M. Sc. days, I have learnt many aspects of animal science from him. He is a patient teacher, an inspiring listener, a brilliant advisor and a reliable friend. The second person to thank is Prof. Ashim K. Chakravarty. His willingness to think deeply on core issues related to animal culture (although he is an immunology expert) and his uncompromising attitude in evaluating the soundness of ideas has constantly challenged me to refine my own thoughts. It was Prof. Chakravarty, who suggested polyculture experiments for ornamental fish; I still recollect his comments made during my Ph. D. Synopsis review; *Science is something novel – try out polyculture with ornamental carps, see if it possible in Indian conditions, study their compatibility, if you succeed, it will usher a novel approach to culture ornamental fish, even if you don't, you can still generate very good data.* Other teachers in the Zoology Department, NBU, namely, Prof. Ananda Mukhopadhyay, Dr. Joydeb Pal, Dr. Tapas Chaudhuri and Dr. Min B. Thapa have educated me on various topics and were very helpful and forthcoming with their suggestions on different aspects.

I am grateful to the Vice Chancellor, NBU, Registrar, NBU, Dean of the Faculty of Science, NBU, the earlier and present Heads of Zoology Department, NBU, for extending me all the necessary facilities throughout the course of the research work.

Most of my field experiments were conducted in Raninagar Ornamental Fish Farm in Raninagar village near Japlaiguri town, West Bengal, where I had educative discussions on some aspects of my research with Mr. Kripan Sarkar, owner of the farm. It was a thrill to work with Mr. Sarkar, whom I used to call *a scientist without degrees*. Although he never had any formal higher education, Mr. Sarkar appeared to be in command on any aspect related to live food culture and water quality management. He emphasized on proper pond management, I remember one particular incident sometime in early 2002, when I was discussing about my research, he said; *first open your formal shirt and pants, get a Bermuda on, and clear the grass from the side banks of that pond.* With twenty years of experience in ornamental fish culture and trade (Mr. Sarkar's is the only ornamental fish farm in North Bengal and one of the largest in India), coupled with his extensive reading habit and frank way of speaking, Mr. Sarkar is an exemplary teacher and an extraordinarily affectionate friend.

I thank Prof. Ban B. Jana, University of Kalyani, Kalyani, India, for his perceptive comments on research planning. Sometime during mid 2001, when we were still toying with various ideas, I made a request to Prof. Jana for his suggestions, to which he replied; *visit some ornamental fish farms, ask the farmers – what their problems are; you will get the basic objectives for your work.* Prof. Jana also provided me with useful statistical software. Dr. Chitta R. Nayak, Computer Centre, NBU, assisted in the statistical analysis. Dr. Bhim P. Pradhan and Mr. Gurucharan Roy, both from Chemistry Department, NBU,

assisted in some of the physico-chemical analysis. Mr. Nirmal Das, Zoology Department, NBU, provided essential analytical reagents from time to time. Dr. Basanta K. Das, and Mr. Surya K. Samal, both from Central Institute of Freshwater Aquaculture (CIFA), Bhubaneswar, India, helped in standardizing some of the bacteriological analysis. Dr. Saroj K. Swain, ornamental fish specialist, CIFA, came out with useful suggestions whenever I visited his office.

My research had immensely benefited from e-mail interactions with some eminent experts on aquaculture/ fisheries. I feel fortunate to live in this Internet - era. In fact I thank the net for offering me the opportunity to interact directly with the likes of Dr. Clyde S. Tamaru, University of Hawaii, Honolulu, United States, Dr. William A. Wurts, Kentucky State University, Princeton, United States, Dr. Ferenc Pekar, Research Institute for Fisheries, Aquaculture and Irrigation, Szarvas, Hungary, Dr. Ana Milstein, Fish and Aquaculture Research Station, Dor, Israel, and Dr. Horst Kaiser, Rhodes University, Grahamstown, South Africa. Their vast knowledge, meticulous review of the research plan and methodology, and above all an exemplary attitude of cooperating with a student they have never met in person is an epic in itself. I have learned enormously from them.

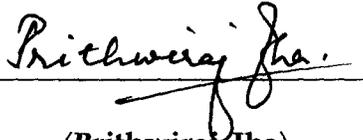
Dr. Culum Brown, University of Edinburgh, Edinburgh, United Kingdom, and Dr. Luis M. Gomez-Laplaza, Universidad de Oviedo, Oveido, Spain, provided useful suggestions on the behaviour experiment. Dr. Jhonny O. Ogunji, Institute of Freshwater Ecology and Inland Fisheries, Berlin, Germany, and Prof. Sofronios E. Papoutsoglou, Agricultural University of Athens, Athens, Greece, also offered their suggestions on various topics. I thank the reviewers of my papers that have been published in various journals or are in press. Their contribution in upgrading the manuscripts helped in an overall upgradation of *this* Thesis; their helpful impact is acknowledged with gratitude.

I thank Mr. Jeremiah Buendia, Library, Southeast Asian Fisheries Development Centre, Philippines, Mr. Junainah A. Suben, Library, World Fish Centre, Penang, Malaysia, Dr. Nathan Stone, University of Arkansas, Pine Bluff, United States, Dr. Charles M. Adams, University of Florida, Gainesville, United States, Dr. Jenny M. Cobcroft, University of Tasmania, Launceston, Australia, Dr. Harry Ako, University of Hawaii, Honolulu, United States, and Dr. Kevin Warburton, University of Queensland, St. Lucia, Australia, who rendered a helping hand in the literature survey. Mrs. Priambada Patri and Mrs. Jaya Kumari, both from CIFA, also provided useful literature assistance. I would like to offer my thanks to the Directors of CIFA, and National Research Centre for Coldwater Fisheries, Bhimtal, India, and the Officers in Charge of Central Inland Fisheries Research Institute, Guwahati Regional Centre, Guwahati, India, and Central Institute of Fisheries Education, Kolkata Regional Centre, Kolkata, India, for providing permission to use their vast library facilities.

I thank my parents and my sister. On many occasions, they with all their patience bore the brunt of my frustration with research and tolerated my complaining tirades. My mother, Mrs. Krishna Jha has always been my source of inspiration. Above all, I thank all those who helped me during the past five hard years, to whom I acknowledge with a sense of guilt for not being able to recollect their names at present. My own words will always be inadequate in expressing the depth of my gratitude for them; in the words of the Bengali poet, Rabindranath Tagore,

*Thy infinite gifts come to me only on these very small hands of mine,
Ages pass, and still thou pourest, and still there is room to fill.*

Date: 27.02.2006.


(Prithwira Jha)