

ACKNOWLEDGMENT

The work presented here could not be accomplished without the genius and constant encouragement of my guide Pro. Aruna A Kanase department of Zoology, Shivaji University Kolhapur . I am grate full to her for constructive criticism and inspiring guidance during my research program. I have always admired her and learnt the qualities thoughtfulness, innovation her company.

With great pleasure, I express my gratitude to Dr. Subhash Patil for his help in editing rearrangement innovation of text during this work.

I thankfully acknowledge hon. Vice chancellor, director BCUD registrar and university authorities for allowing me to work in the Department and providing all the necessary facilities.

I express profound regards and gratitude to head of the department of Zoology Prof. G P Bhawane. For his kind support and cooperation in my work.

I take this opportunity to express my sincere thank to all my teacher of the department of Zoology prof. D V Mule, Prof. T V Sathe, Dr. M P Bhilawe and M V Walvekar who continuously monitored and encouraged me during the progress of work I also owe my thanks to non teaching staff of the Department for their cooperation extended to me during my work.

I also thank to Mr. Mane and Mr. Koli from Assistant commissioner of Animal Husbandry Central Hatchery, Kolhapur for timely cooperation.

I am grateful to the authorities and staff of USIC and CFC for their kind assistance and providing facilities and Br. Khardekar library for making the necessary books and journals accessible to me.

I am deeply great full to my senior research collogues Dr. Priti Chougule, Mr. Shashikant Kasabe and fellow research scholars Ms Savita Toraskar and other for their unstinted cooperation in valuable help and cheerful assistance which made each step of the work enjoyable and memorable.

I shall be grateful to my all friends, well wishers and others for timely help. It is my kind duty to thank my well wishers and supporters who helped me directly and indirectly.

Last but not the list I am very much indebted to my family. I acknowledge my late father for his blessings. My mother, whose understanding nature devotion for family and encouragement to work hard. I thankful to my Mavshi and Kaka for their support. I heartily acknowledge my brother Swapnil, my sisters Shital, Amruta, Varsha, my cousons Tushar and Kalyani. Last but not the list my sisters daughter Vasu who's cheerfull face encourages me time to time.

Finally it would be ungrateful and unfortunate if I do not remember the lord of knowledge and intelligence , Shri Ganesha and Shri Mahalaxmi.

I thank the almightily for showering his blessing and to complete this work successfully.