First and foremost, I sincerely and gratefully acknowledge the immense support given by my guide, an eminent scholar Dr. K.M. Kulkarni, Joint Director, Higher Education, Amravati Division, Amravati and Ex-Head and Reader Department of Zoology, Govt. Vidarbha Mahavidyalaya, Amravati. He is a colossus among scholars. His research capabilities and scientific bent of mind coupled with an initiative group of theory and practical knowledge have enabled the successful completion of the thesis, through numerous discussions, corrections and also enlightenment regarding various points of research undertaken. His wonderful guidance and assistance made the task of research much lighter and enjoyable.

I am extremely grateful to Dr. S.V. Soitkar, Principle, Govt. Vidarbha Mahavidyalaya, Amravati, who generously permitted the use of college laboratory. Without his sympathy, my labours would have been twice compounded.

I extend my special thanks to Dr. Mangala Kulkarni for her encouragement, kind regard and moral support during every stage of my work. I am also thankful to Master Malhar Pangarikar for his kind consideration and assistance.

A research work cannot be carried out without experts opinions on various aspects. I take this opportunity to thank Dr. P. A. Wadegaonkar, Department of Biotechnology, Amravati University, Amravati for sparing his valuable time for frequent consultations on various aspects of research undertaken. I am truly indebted to him.

I have been uniquely fortunate in receiving continuous encouragement from my colleagues. I must mention Dr. V. H. Singh, Prof. V.S. Zade and Prof. M.M. Baig for their cooperation.

I especially thank my research colleagues Prof. Raja, Prof. Gulhane, Prof. Jadhao, Prof. Wookie, Prof. Santosh Pawar, Prof. Pravin Joshi, Prof. Jayashree D. Dhote, Archana Pawar, Rashmi Chaudhary and Kirti Chakote for their co-operation during research work.

It would be unfair on my part not to
mention the sustained but silent inspiration given to me by my mother and father. Once I bow my head to them. It is because of their love and constant support that I have come so far.

I cannot help mentioning my family members who sacrificed much during the course of my research work. I must also thank my brother Shri. Milind Wankhade, my brother in law Shri. Vasant Tantarpale, elder sisters Sau. Babita Tantarpale and Miss. Urmila for their kind support both moral and practical.

Number of people contributed in their own ways to the completion of this thesis. I am thankful to the Librarians P.K.V. Akola, Amravati University, Amravati and Govt. Vidarbha Mahavidyalaya, Amravati.

I record here my indebtedness to all those who referred to here as well as those, who though not named, would not take my silence for ingratitude.

Researcher

Varsha Wankhade