Acknowledgements

At the outset, I praise to Almighty Allah for his mercy and magnanimity. I would like to thank all those illuminating personalities that had a direct or indirect bearing in accomplishing this colossal task.

First and foremost, I am unbossomnig my sincerest gratitude to the charismatic personality, my supervisor and mentor, Professor Ashok Channa, P. G. Department of Zoology, the University of Kashmir, Srinagar whose guidance and constant encouragement made it possible for me to complete the research work. His illuminating knowledge and constant support both manual as well as verbal, proved substantial in composing my thoughts and observations on the topic.

I extend my gratitude to Prof. G. Mustafa Shah, Head, P. G. Department of Zoology, the University of Kashmir, for providing the departmental facilities without which it was impossible to carry out the research work.

Thanks are due to Prof. Akbar Masoodi, Head, P. G. Department of Biochemistry, the University of Kashmir for providing necessary laboratory facilities.

I am deeply grateful to all the staff members and research scholars of both the P. G. Departments of Zoology and Biochemistry for their enthusiastic support, constant helpfulness and assistance during the course of my research.

I acknowledge my sincere feelings to Dr. Bashir Ahmad Ganie, Reader, P. G. Department of Biochemistry, the University of Kashmir and Mr. Bashir Ahmad, microbiologist, Sher-i-Kashmir Institute of Medical Sciences Soura for rendering moral as well as material support.

It shall be out of place if I do not mention about Prof. G. Mohi-U-Din, Director USIC and his team for providing the SEM facilities.
I would like to thank Mr. Gulzar Ahmad Ganie (lecturer) and Mr. Mohd Akram Bhat (Teacher) for their help during the course of work.

I put on record my appreciation for friends especially Mr. Showkat Ahmad Ganie, Mr. Imtiyaz Hussain Mir, Dr. Bilal Ahmad, Miss. Sumaira Nabi, Miss. Shabnum, Mr. Riyaz Ahmad, Mr. Tariq Ahmad, Mr. Mehraj Bashir, Mr. Javid ahmad, Dr. Imtiyaz and Mr. Syeed Shakeel Andrabi who stood with me in the hard times that I faced during the course of my work.

I extend my thanks to Mr. Parvaiz Ahmad, Virus Digital Internet (Cyber Innovations) who deserves a special word of appreciation for typing this thesis with patience and zeal.

Last but not least, I acknowledge the debt of my parents for all kinds of support that I received while carrying out my research.

Srinagar, Kashmir

Dated: 07.12.2008

(Mohd. Yousuf Bhat)