Acknowledgements

I owe special thanks to my supervisor Dr. Shreekar Pant, Senior Assistant Professor, Centre for Biodiversity Studies, School of Biosciences and Biotechnology, BGSB University, Rajouri for his ardent interest, helpful discussions, creative ideas, unfailing advice, unstinted encouragement and considerate understanding.

I extend deep sense of gratitude to Prof. S.P. Khullar FNASc, my co-supervisor for his invaluable guidance, suggestions, correct identification and classification of species. His suitable guidance, advice and suggestions have always helped me to think positively and remain optimistic. I am fortunate to have an opportunity to study under him. I ever remain grateful to him.

I would like to thank to the Prof. Javed Musarrat, Hon’ble Vice Chancellor, BGSB University for providing me all necessary facilities and for their encouragement.

A special thanks to Prof. I.A. Hamal, former Vice Chancellor BGSB University, for his help in re-registration. His help helped me sail through stressful period.

I am thankful to Prof. A.K. Koul, Dean Academic affairs for their continuous inputs and suggestions.

I owe my gratitude to Prof. G.H. Dar, Dean School of Biosciences and Biotechnology for his constant support, encouragement and providing all facilities to complete my research work.

My sincere thanks to Dr. Alka Kumari, Institute of Himalayan Bioresource Technology (CSIR), Palampur, Himachal Pradesh for all help and support during my research work.

I can never forget the valuable knowledge and techniques learned from Late Dr. H.C. Pande, Botanical Survey of India, Dehradun. I pray for the departed soul.

I am extremely grateful to Drs. Susheel Verma and A.A. Shah for their valuable guidance and help throughout my research work.
Mrs. Mamta Bhat also encouraged me at various ups and downs.

Thanks are due to all the members of the School of Biosciences and Biotechnology for their help, co-operation and support.

I am extremely grateful to all my labmates Mr. Tsewang Rinchen, Mr. Raqeeb Ahmad, Mr. Yasser Rafiq, Ms. Diksha, Ms. Nazia, Mr. Abid Hussain, Mr. Shahnawaz, Mr. Mangesh and Mr. Kaisser who gave me vital support and suggestions in difficult situations.

I am thankful to Drs. Ankush Khajuria, Shavish Vaid, Asger Mughal, Tariq Dar and Fareed Khan for their support and encouragement.

I am also thankful to Mr. Ahsan and Mr. Arjun, Research Scholars of Department of Geology, University of Jammu, Jammu for providing map of the study area.

Thanks are also due to my friends Ms. Sonia, Supriya, Mr. Nipun and Rubaida, as they have been a great source of encouragement to me during the course of present study.

All field assistants, Mr. Sajid Shah, Mr. Mohd Imtiaz, Mr. Mohd Shabir and Mr. Mohd Aslam contributed immensely in their ways.

Inhabitants of the study area remained supportive and helpful. Mr. Waseem deserves a special mention.

I am speechless to express thanks to Dr. Tanwir Khan for constant encouragement and kind co-operation during the progress of the research work.

I am also thankful to my father who gives constant encouragement, blessings and help for higher education. This work wouldn’t have been completed without the blessings of my mother, sisters and brother.

(Shagufta Anjum)