

Acknowledgement

Foremost I express my profound gratitude to my supervisors **Dr. Jatisankar Bandyopadhyay**, Assistant Professor, Department of Remote Sensing and GIS and **Dr. Bidhan Chandra Patra**, Professor, Department of Zoology, Vidyasagar University, Midnapore-721 102, West Bengal for masterly guidance, suggestions, inspiration and constant encouragement at all stages of my research work. It would be expressed in a befitting manner that without unreserved affectionate encouragement and supervision, it would not have been possible for me to proceed this work in a single handed manner. My work was much simplified by my supervisors.

I am equally grateful to **Dr. Ashis Kr. Paul**, Professor, Department of Geography & Environment Management, Vidyasagar University, Midnapore, West Bengal for his constructive comments and suggestion during my research work.

I gratefully acknowledge the help rendered in various ways by **Dr. Surajit Panda**, Senior Technical Associate, Forest Survey of India (FSI), Ministry of Environment, Forest & Climate Change-Ranchi.

I would like to thank **Dr. Suman Pratihar** (Assistant Professor, Department of Zoology, Sukumar Sengupta Mahavidyalaya, Keshpur, Paschim Medinipur, West Bengal-721150) for his co-operation, constructive comments and support during my work.

I am always thankful to **Miss. Swasti Barman** (Research Scholar, Department of Zoology, Vidyasagar University, Midnapore-721102, West Bengal) for her support during the research, fieldwork and data collection.

I am also thankful to **Dr. Manojit Bhattacharya** (Assistant Professor of Zoology, Fakir Mohan University, Balasore, Odisha) for his support during my research work.

I am also greatly thankful to **Dr. Abhisek Chakrabarty**, **Dr. Dipanwita K. Dutta**, Assistant Professor of Department, Remote Sensing and GIS of Vidyasagar University, Midnapore.

I am also thankful to **Mr. Sumanta Saha** (Technical Assistant), **Dr. Ismail Mondal** (Assistant Professor, Jadavpur University), **Dr. Sonjay Mondal**, **Tanmoy**

Karan, Kunal Kanti Maiti, Anurupa Paul, Subrata Sarkar, Wasim Akram, Panchanan Das and Suman Das (Research Scholar Department of Remote Sensing and GIS, Vidyasagar University).

I am always thankful to the Department of Fisheries, Government of West Bengal, Department of Agriculture (Govt. of West Bengal), State Soil Survey, Abas, Paschim Medinipur for providing maps and data, used in this research. I am also thankful to the United States Geological Survey (USGS) data center (USGS GloVis web site) and Global Land Cover Facility (GLCF) for providing the satellite data.

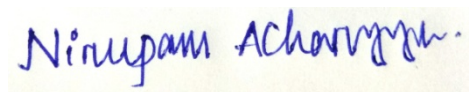
I also express my thanks to the Department of Remote Sensing & GIS (Vidyasagar University) and Department of Zoology (Vidyasagar University) for providing all lab facilities to carry out my study.

I also express my thanks to all other members, students and research scholars of the Vidyasagar University, Midnapore for their co-operation with me, throughout this research work.

I would like to express my deep thanks to my parents and all my family members for their support, motivation, patience, sacrifices throughout this period when I need them.

Above all I thank the almighty God forever.

Date: 24/08/2020



(Nirupam Acharyya)