Contents

Page No.

Acknowledgement **i**

Acronyms **iii**

Chapter 1*:* Introduction **1**

Chapter 2: Introduction to Trawl Shrim Fishery in Bangladesh 14

Chapter 3: Estimation of Bioeconomic Parameters of Trawl Shrimp Fishery in Bangladesh 27

Chapter 4: Optimal Control: Non-Linear Dynamic Optimization Model in Bangladesh Trawl Shrimp Fishery-Discrete Time Analysis 43

Chapter 5: Optimal Control and Feedback Rule: Non-Linear Dynamic Optimization Model in Bangladesh Trawl Shrimp Fishery-ContinuousTime Analysis 56

Chapter 6: A Study of Chaotic Dynamics and Catastrophic Discontinuities in Bangladesh Trawl Shrimp Fishery 73

Chapter 7: Conclusion **92**

References & **Biblography:** **i**

Appendix: **xxi**