Preface

The work enclosed in the thesis is an effort towards evaluating the role of different biotic and abiotic factors on *Vibrio cholerae* distribution, abundance and seasonality. This thesis comprised of 8 chapters (1-8). Chapter 1 provides a general introduction and Chapter 2 seeks a comprehensive review of the literature pertaining to the entire thesis. Chapter 3-7 forms the main body of the thesis and each chapter is an independent paper. Similarly, Chapter 8 draws together the summary and conclusions from each of the individual papers and serves to synthesize the individual chapters into a single body of work. To avoid unnecessary duplication references of all chapters were compiled together and presented in a separate section.

The main body of the thesis:

Chapter 3 evaluates the distributional status of traditional indicators of faecal pollution, total coliforms, faecal coliforms and *Faecal streptococci* and few potentially pathogenic enteric bacteria (*V. cholerae*, *V. parahaemolyticus*, *Shigella* spp. and *Salmonella* spp.) in coastal sea water along the Southern Kerala, India (Veli, Neendakara, Alappuzha and Kochi) along with their relationships.

Chapter 4 discusses the different abiotic environmental factors that contribute to *V. cholerae* seasonality, abundance and distribution.

Chapter 5 illustrates the influence exerted by different zooplankton groups on the survival and distributional status of *V. cholerae*.

Chapter 6 investigates the role of physico-chemical characteristics involved in the association of *V. cholerae* with marine phytoplankton.

Chapter 7 explores the ecology of culturable *V. cholerae* in coastal sediments and their association with sediment-inhabiting benthic organisms.