

PREFACE

The Zoology Laboratory of Shivaji University is engaged in extensive researches on mucosubstances, lipids, proteins and a galaxy of highly active enzymes such as β -glucuronidase, acid phosphatase, non-specific esterases etc. in the reproductive organs of invertebrates and vertebrates. The studies incorporated in the present thesis form a part of this extensive research scheme and are concerned with the histological study and histochemical characterization of the mucosubstances of the various reproductive organs of the marine cypraea, Arabica arabica.

The present thesis is divided into six chapters. The first chapter includes a brief review of the existing literature on mucosubstances in the various organs of the gastropod (mollusca) reproductive tract, reasons that stimulated to undertake the present investigation and also outlines the plan of the present research work. The second chapter deals with the Material and Methods employed in the present investigation. Chapters three to six record the detailed histological and histochemical observations in different organs, testis, seminal vesicles, sperm duct and penis. The observations are supplemented with tabulated forms and photomicrographs. Efforts have been made to make each chapter complete with reference to critical analysis of the literature, observations and discussion. Last chapter is followed by concluding remarks. The thesis ends with the bibliography of the vast literature cited in the various chapters.