

P R E F A C E

The Zoology Laboratory of Shivaji University is engaged in extensive research on mucosubstances, lipids, proteins and a galaxy of highly active enzymes such as β -glucuronidase, acid phosphatase, non-specific esterase etc. in the alimentary tract of invertebrates and vertebrates. The studies incorporated in the present thesis form a part of this extensive research scheme and concern with the histochemical characterization of the mucosubstances in the various organs of the alimentary tract of the toad, B-melanostictus.

The present thesis is divided in to five chapters. The first chapter includes definition and classification of mucosubstances, a brief review of the existing literature on mucosubstances in the various organs of the vertebrate alimentary tract, reasons that stimulated to undertake the present investigation and this chapter also outlines the plan of the proposed research work. The second chapter deals with the material and methods employed in the present investigation. The chapter three is devoted to histological and histochemical observations on esophagus and discussion. The chapter four is devoted to histological and histochemical observations on cardiac stomach and pyloric stomach and discussion. The fifth chapter deals with the histological and histochemical observations on duodenum, small intestine and large intestine and discussion. The last chapter is followed by summary and concluding remarks. The thesis ends with a bibliography of the literature cited in various chapters.