

## P R E F A C E

Acid phosphatases [E.C.3.1.3.2] are a group of widely distributed enzymes of very broad specificity differing somewhat with the source of the enzyme. They all act on a wide range of monoesters of orthophosphoric acid, both aliphatic such as glycerol-1-phosphate and glycerol-2-phosphate and aromatic such as 4-nitrophenyl phosphate. They are present in lysosomes. They are also found in other cell organelle. They differ in their characteristics. Their role in many physiological processes including reproduction is known.

The acid phosphatases are studied cytochemically in amphibian ovaries but hardly any attempt is made to study their biochemical characteristics. Since ovary is heavily engaged in development and maturation of oocytes in prebreeding condition it was decided to study ovarian acid phosphatase from prebreeding condition.

Thus within the laboratory limitations the isolation and characterization of ovarian acid phosphatase is done. These results are presented in the following Chapters.

Chapter I deals with the present status of the subject and reviews the relevant literature. Chapter II gives details about the material collection and methods adapted. In Chapter III, IV

and V the three enzyme species noted [ Enzyme I (3.7 pH), Enzyme II (4.4 pH), Enzyme III (5.00 pH) ] are described with the biochemical characterization respectively. In Chapter VI the results are discussed with the relevant literature. Chapter VII of concluding remarks reviews the present work and deals with the future plans.

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