AIMS AND OBJECTS OF THE PRESENT STUDY.

From the preceding brief reviews it appears that although considerable amounts of research has been carried out on the structural and functional aspects of amphibian excretory organs, much of our knowledge on the subject is still fragmentary and inconclusive. It is proposed in the present thesis to study some aspects of polymorphism of nonnuclear proteins in the excretory organs (viz. the kidney, lung and skin) of five common amphibian species, found in West Bengal. It is further proposed to study (in these organs) the activity of the enzyme carbonic anhydrase, which plays important regulatory roles in the excretion of carbon dioxide. The polymorphism of the enzyme would also be investigated in these organs. Furthermore, the relationship between the esteratic property (aryl - esterase E.C. 3.1.1.2) and the distinctive carbonic anhydrase (E.C. 4.2.1.1) activity of these organs would be taken up in these studies.

These studies may help us to identify some characteristic patterns in the systematic interrelationship between these five species of amphibia. The systematics in this context has been taken to imply "The scientific study of the kinds and diversity of organisms and of any and all relationships among them" (Simpson, 1961).