INTRODUCTION

The colour change mechanism in fishes is known since the times of Aristotle. But it is during the current century that this exciting treasure of behavioural discipline has been extensively explored. More particularly, the advanced and wide-ranging investigations were carried out on this subject of fish physiology in the last two or three decades. As a result of such intensified interest shown by the researchers several monographs and reviews have been published, some important among which are those of G.H. Parker (1948), Pickford and Atz (1957), J.M. Calmes (1957), D.L. Fox (1957), H. Waring (1963), V. Fingerman (1963), Ryozo Fujii (1968) and F.S. Abbott (1973).

In India, very little work has been done on animal behaviour in respect of colour change mechanism. In crustaceans, the process of colour change has been worked out by Madhyastha and Rangaswamy (1965), Nagabhushanan (1966) and Vasanthi (1970). Similarly, the available published information regarding colour change mechanism in vertebrates is also very meagre. The colour responses among the vertebrates are known from the works of Pandalai et al. (1967) on Calotes, John and Alexander (1971) on two siluroid teleosts - Macrones chrysops and Saccobranchus fossilis. The rate of colour change mechanism in Lepidocybali- phthys guntea, a fresh-water teleost, has been studied by Bhargava and Dwivedi (1970).
The present study is a pioneer attempt by the author in India on the colour change mechanism in vertebrates particularly the fresh-water teleost fish.