I. GENERAL INTRODUCTION AND REVIEW

Annual fish production in Egypt is almost 384000tons from which marine waters; Red Sea and Mediterranean contribute 96000 tons (GAFRD, 1996). A heavy demand for fish as a protein source will continue till the annual production could be doubled even tripled. This increase calls for a well planned strategy to exploit the capture and culture prospects of most economic fish species available in Egypt. According to this concept, studies on fish biology will have a meaning toward the full understanding of the candidate fish species and its viability for production. Siganids, marbled spine foot or rabbit fish is a group of fishes which contribute about 0.56% of the total marine fish landing in Egypt. Marbled spine foot or rabbit fish are the members of family Siganidae reaches to twenty species in the Indopacific waters represented by five species only in Red Sea. When Suez Canal was first opened in 1869 and Mediterranean then linked with Red Sea, for world navigation, some aquatic organisms immigrated in between. Two species of genus *Siganus* have settled in the eastern south waters of Mediterranean. These two species namely are: *Siganus rivulatus* (Forskal, 1775) and *Siganus luridus* (Rüppel, 1828) which in turn are the subject of the present study.

Family Siganidae forms a flourishing basis for capture and culture fisheries in several regions of Indopacific waters. Therefore it had received a good deal of work, and still, regarding various aspects of research studies.

In the field of classification and taxonomy published accounts of Fowler and Bean (1929), Mendies (1954), Fowler and Steintz (1956), Ben Tuvia (1964, 1966 and 1972) and Mohamed (1991) among others have contributed to the view point of taxonomy. Protein taxonomy in marine fishes using electrophoretic mobility was used for species specific protein pattern of siganids for the first time in this region here.

Study of food and feeding habits of siganids seems to be of interest as mentioned by Rizkalla *et al.*(1989), Paul *et al.* (1990) and Mohamed (1991). Rabbit fish is a group of herbivorous fishes having an economical importance, thus the study of its food spectrum and the preferability order will help in formulating the most convenient diet in case of fish rearing schemes.

Aquisition of information about fish age and the relevant growth rate was also studied by earlier authors (Hashem,1983; El-Gammal,1988 and Mohamed, 1991) and the subject so far will be investigated. The methods and results may vary from time to time or region to region and it is commonly controlled by habitat variations.

Biology of reproduction of Siganids was dealt with by number of authors Hara *et al.*(1986) and Kohno *et al.*(1988). Rabbit fish normally breed at summer season giving rise to new recruitment within June-July.

Details of the subject review and the material used or methods adopted will be presented in length at each chapter of the study. The pertaining results and relevant discussions will be also exhibited as well as the entire cited literature is quoted and listed at the last chapter.

The objectives of the present work are directed toward updating biological aspects of the two main species of genus *Siganus* occurring in Alexandria region of the Mediterranean namely *Siganus rivulatus* and *Siganus luridus*. Also to elucidate the informations accumulated earlier in order to be employed for better planning of capture and culture fisheries of genus *Siganus* in the marine waters of Egypt.