

THE BIOLOGY OF GREY MULLET IN A TROPICAL LAGOON IN SRI LANKA. I — AGE AND GROWTH

M. J. S. WIJAYARATNE AND H. H. COSTA

Department of Zoology, University of Kelaniya, Kelaniya, Sri Lanka.

ABSTRACT

The age and growth, coefficients of condition and length-weight relationships of seven species of grey mullet viz. *Liza subviridis* (Valenciennes), *L. macrolepis* (Smith), *L. tade* (Forsk.) , *L. vaigiensis* Quoy and Gaimard, *Mugil cephalus* Linnaeus, *Valamugil buehanani* (Bleeker) and *V. cunnesius* (Valenciennes) were studied in Negombo lagoon, Sri Lanka. *M. cephalus* showed the highest asymptotic length of 897mm while the lowest value of 300mm was calculated for *V. cunnesius*. Allometric growth was evident in all species except in *M. cephalus* and the females of *L. tade*. Statistically, significant differences in the length weight relationship of the two sexes were observed in the case of *L. subviridis*, *L. macrolepis*, *L. tade*, *M. cephalus* and *V. cunnesius*. In these species, the coefficient of condition of the females were found to be significantly higher than those of the males.

Key words: length-weight relationship, grey mullets, Lagoon, Sri Lanka.

INTRODUCTION

Grey mullets have constituted important fishery in the brackishwater areas and are considered as candidate species for aquaculture (Pillay, 1972; Pruginin, Shilo and Mires, 1975; Oren, 1981). Although grey mullets form an important component in the lagoon fishery of Sri Lanka (Pillai, 1965; Wijeyaratne, 1984), the biology of the common species of grey mullets is still more or less completely unknown. This paper presents the results of the investigations carried out on age and growth, coefficient of condition and length-weight relationships of seven species of grey mullets namely *Liza subviridis* (Valenciennes), *L. macrolepis* (Smith), *L. tade* (Forsk.), *L. vaigiensis* Quoy and Gaimard, *Mugil cephalus* Linnaeus, *Valamugil buehanani* (Bleeker) and *V. cunnesius* (Valenciennes) collected from the Negombo lagoon which is situated in the west coast of Sri Lanka.

MATERIALS AND METHODS

The samples of grey mullets for this study were collected biweekly from the commercial catch at the three main fish landing sites in Negombo lagoon