ON THE BIOLOGY OF AN ESTUARINE POPULATION OF GREY MULLET, *MUGIL CEPHALUS* L., IN NEGOMBO LAGOON, SRI LANKA.

by

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ABSTRACT.– *Mugil cephalus* L. in Negombo lagoon (7°10'N and 79°50'E), Sri Lanka, were observed to be non-intermittent spawners who spawn once during their spawning season which extends from October to November. In small length groups, males were more abundant but a 1:1 sex ratio was attained with growth. The mean lengths at maturity were 33.7 cm and 37.0 cm for males and females respectively. The fecundity ranged from 0.71 x 10^6 to 1.7 x 10^6 for fish ranging in size from 34 cm to 46 cm. The relative gut length which varied from 3.52 to 5.14 did not change significantly with size. The main food item of the fish above 10 cm in total length was serpulid polychaetes. Composition of the diet did not change significantly with growth.

RÉSUMÉ.– *Mugil cephalus* L., de la lagune Negombo (7°10'N et 79°50'E), au Sri Lanka, est un poisson dont la ponte ne se fait qu'une seule fois au cours de la saison de ponte (octobre à novembre). Dans les petites classes de tailles, les mâles sont plus abondants mais un sex ratio de 1:1 est atteint lorsque l'âge augmente. Les longueurs moyennes à la maturité sexuelle sont de 33.7 cm et 37.0 cm pour les mâles et les femelles, respectivement. La fécondité varie de 0.71 x 10^6 à 1.7 x 10^6 pour des poissons de 34 à 46 cm de longueur. La longueur relative du tube digestif, qui varie de 3.52 à 5.14, ne change pas avec la taille de manière significative. Les proies principales des poissons d'une taille supérieure à 10 cm de longueur totale sont des Polychaetes Serpulidés. La composition du régime alimentaire ne varie pas significativement avec la croissance.

Keywords : Mugilidae, *Mugil cephalus*, Sri Lanka, Reproductive biology, Food, Feeding.

The grey mullet, *Mugil cephalus* L., has been identified as a very important species in the brackish water fisheries of tropical and subtropical regions throughout the world. Its importance and extensive distribution has stimulated research on its biology in various regions of the world (Thomson, 1966 ; Pillay, 1972 ; De Silva, 1980 ; Oren, 1981). In Sri Lanka, some aspects of the biology of young stages and the reproductive biology of adults has been described (De Silva and Perera, 1976 ; De Silva and Wijeyaratne, 1977 ; De Silva and Silva, 1979 ; Perera and De Silva,

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