

INFLUENCE OF SEAGRASS COVERAGE ON THE ABUNDANCE OF THREE COMMERCIALY IMPORTANT BIVALVE SPECIES IN PUTTALAM LAGOON.

H.M.P. Kithsiri, M.J.S. Wijeratne* and U.S. Amarasinghe*

A study was carried out from September 1991 to August 1993 in the Puttalam lagoon to determine the influence of seagrass coverage on the abundance of three commercially important bivalve species, namely, *Gafrarium tumidum*, *Marcia hiantina* and *Marcia opima*. The most abundant of these three bivalve species was *G. tumidum*. The highest coverage among seagrasses was recorded for *Halodule uninervis*. The abundance of these bivalves and the coverage of the seagrasses were determined at 15 sampling stations distributed in the lagoon proper and Dutch bay. The seagrass coverage ranged from 19.2% recorded at Nachchikalliya to 92.8% recorded at Wattakalama area. The relative abundance of the bivalves ranged from 0 nos/m² record at Nachchikalliya to 41.8 nos/m² recorded at Wattakalama area.

The abundance of these bivalves in puttalam lagoon was found to be highly correlated with seagrass coverage ($r=0.8911$, $p<0.0001$). There fore, it appears that the seagrass coverage is a significant factor that contributes to the abundance of these commercially important edible bivalves in the puttalam lagoon.

*Department of Zoology, University of Kelaniya, Kelaniya