

Proceedings of the twelfth Annual Session of the Sri Lanka Association for Fisheries and Aquatic Resources, 29th June 2006, NARA, Colombo 15. 1
(Abstract)

IDENTIFICATION OF *Penaeus merguensis* (De Man, 1888) STOCKS IN THE WESTERN COASTAL WATERS OF SRI LANKA BY MORPHOMETRIC ANALYSIS.

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Penaeus merguensis (De man, 1888) is an important constituent of shrimp catches of Sri Lanka. It is mainly recorded in the shrimp catches from the trawl nets, trammel nets, cast nets, and traps in the seas off Sri Lanka. This study was carried out to identify its stocks in the marine waters along the West Coast of Sri Lanka based on the analysis of morphometric relationships as the identification of stocks is very useful for the management of fishery resources. The study was based on 7 morphometric characters such as carapace length, abdominal segment length, telson length, inner uropod length, inner uropod width, 5th pereopod length and total length. The samples consisting more than 100 individuals representing both sexes were collected from commercial trawl catches of four shrimp landing sites of the west coast of Sri Lanka namely, Negombo, Kalpitiya, Chilaw and Hendala from March to June 2004. Each morphometric character was regressed against carapace length and multiple comparisons of slopes were carried out. Morphometric analysis indicated poor separation between females of four sites compared to males. Males of four sites showed significant differences with respect to some characters such as last abdominal segment length and inner uropod length. Results indicated that the existence of separate stocks of *Penaeus merguensis* in the western coastal waters of Sri Lanka seems to be unlikely.