

Population Structure, Growth and Length Weight Relationship of Sergestid Shrimps (Acetes spp.) from the Coastal Waters of Malacca, Peninsular Malaysia

ABSTRACT

The size frequency distribution for age structure and length weight relationship of three species of the genus *Acetes* from the coastal waters of Malacca, Peninsular Malaysia are reported. The length frequency distribution for *A. indicus* suggested that the population consisted of two dominant age groups with mean at 20.80 (± 2.42) mm and 29.85 (± 2.79) mm of total length, respectively. The population of *A. japonicus* consisted of maximum two age groups, with means of 15.18 (± 0.90) mm and 21.56 (± 1.03) mm of total length. The population of *A. intermedius* also consisted of maximum two age groups, with means of 19.18 (± 2.45) mm and 26.92 (± 2.82) mm of total length. The positive allometric nature of growth for *A. indicus* was observed in the coastal waters of Malacca. But isometric nature of growth was found in combined sexes of *A. japonicus*. The positive allometric nature of growth was observed in female and both sexes of *A. intermedius*. There were significant difference between males and females size-frequency distribution of *A. indicus* (Kolmogorov-Smirnov test: $d_{max} = 0.42$, $P < 0.001$), *A. japonicas* (Kolmogorov-Smirnov test: $d_{max} = 0.39$, $P < 0.001$) and *A. intermedius* (Kolmogorov-Smirnov test: $d_{max} = 0.40$, $P < 0.001$). The significant differences were observed between mean total length of female and male of *A. indicus*, *A. japonicus* and *A. intermedius* (t-test, $P < 0.001$).

Keyword: Population structure, *Acetes* spp, Peninsular Malaysia