

Analysis of past 26 years landing data to understand the status of *Acetes* spp. populations in Malaysia

ABSTRACT

Acetes spp. is one of the sergestid species that living mainly in the estuaries and shallow waters of the tropical and subtropical regions. In Malaysia, it is known as '*Udang Baring*' in Peninsular Malaysia and '*bubuk*' in Sabah and Sarawak. *Acetes* shrimp pastes are being produced widely throughout Southeast Asia. Economically, these shrimps contribute to the local in Malaysia as they are commercially being sold as dried, salted or fermented shrimps as part of the local delicacies such as '*belacan*' and '*cencaluk*'. Data on *Acetes* landing (1993-2018) was collected from Department of Fisheries of Malaysia (DOFM) and Department of Fisheries Sabah (DOFS). Several missing data from Sabah (DOFM) was replaced by data from DOFS. All data were analysed using Multidimensional Scaling (MDS) and cluster analysis to determine the similarities of *Acetes* landing throughout the study years. Results of MDS indicate that at 80% similarity, the landing years were clustered into 11 groups. Correlation analysis indicates that three states were negatively correlated with landing years while another three states showed a positive correlation ($p < 0.05$). The significant increase of landings in early 2000s might due to the government effort in 1996 that had initiated Malaysia's National Agricultural Policy (NAP) 3 (1998 – 2010). Results showed landings 1990s' and early 2000s' were low and all impacted by the climatic events (El Niño, La Niña, or both). In conclusion, the increasing trend in *Acetes* landings lately potentially show that *Acetes* industry is getting more recognized in Malaysia even though some states showed a drastic decreasing trend that probably indicates overexploitation which needs further investigation for confirmation.