

Imposex study on *Thais bitubercularis* in Merambong Shoal, Johor

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Imposex in *Thais bitubercularis* was observed in Merambong Shoal. About 18% from female individuals of the species were found to have male sexual organs, which is imposex at various stages. Stage 2 is the highest level of imposex discovered. The imposex occurrence was determined by calculated the proportion of females with imposex to the total number of female in sample and the degree of imposex was assessed using the vas deference sequence index and the percentage of females possessing the imposex characteristics. There are no significant relationship between the shell height and the number of spines between the degrees of imposex occurrence in *T. bitubercularis*. The present study also provided an overview of the present condition of the population health of *T. bitubercularis* at Merambong Shoal. Based on the male to female ratio, the population in Merambong Shoal showed in normal ratio which is 5:7 and this ratio is closer to normal ratio condition which is 4:7. The imposex incidence in the population reveals that *T. bitubercularis* in Merambong shoals are no exception from being exposed with the pollutant that can promote imposex occurrence. Tributyltin (TBT) which was recorded as the most suspected pollutant causing imposex in gastropod is expected contaminating the Johor Straits. However, the low incidence of imposex can be explain as the sample was collected from a shoal that receive high water current. The condition causing very low suspended particles or organic matter in the sediment resulting low TBT deposition in the sediment, then automatically low uptake by the biota living in the shoal.

Keywords: Imposex, *Thais bitubercularis*, tributyltin (TBT), Johor Straits