

## BIODIVERSITY OF MOLLUSCS ON ARTIFICIAL REEFS IN PHE BA Y, EASTERN COAST OF THE GULF OF THAILAND

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Surveys of molluscs were conducted at two locations of abalone artificial reefs in Phe Bay, eastern coast of the Gulf of Thailand, using two types of concrete blocks. The blocks consisted of transplanted seaweed blocks and control blocks without seaweed. A total of 200 species of molluscs in 63 families, including 100 gastropod and 100 bivalve species (juvenile and adult), were identified on these blocks during the course of monitoring. Environmental conditions fluctuated little during one-year of monitoring at the location near Samet Island. There were 139 mollusc species, from 52 families (67 gastropods and 72 bivalves) found at this location. *Pyrene* sp. was the dominant gastropod in terms of its year-round occurrence and abundance in number of individuals, while *Chama* sp. and family Ostreidae were the dominant bivalves. The monthly index of diversity indicated no fluctuation in the number of species. The highest numbers of gastropods were found in January, while that of bivalves occurred in May. At the location near Ban Phe beach, environmental conditions fluctuated considerably, and 142 species in 53 families of molluscs (68 gastropod and 74 bivalve species) were recorded. The monthly diversity index also showed a significant fluctuation during the one-year of monitoring. *Thais rufotincta* was found to be the dominant gastropod species while *Anomia* sp. and Ostreidae were the dominant bivalves. The highest abundance of gastropods and bivalves were found in February and May respectively. In addition, the blocks with transplanted seaweed recorded a higher number of species, total abundance, and species richness, than those of control blocks. Overall, the results showed that biodiversity of molluscs on abalone artificial reef was dependent on fluctuations of environmental conditions, the presence of transplanted seaweed on the reef surface and interference by humans.