Trace metals in Thai clavigera along coastal waters of the east coast of Peninsular Malaysia

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Abstract

The relationship of trace elements in the soft tissues of Thai clavigera from 11 sampling sites along the coastal waters of the east coast of Peninsular Malaysia was studied. Significant inter-site variations in trace metals were recorded, with relatively high concentrations of the contaminants Cu, Zn, Cd, Fe and Mn observed compared to their close proximity to industrial and urban areas or to fishing and aquaculture activities. This could possibly be attributed to the high growth of industrial activities like port and sewage discharges. Inter-site comparison with previous studies indicated lower measurement. However, comparison with other studies around the world also demonstrated lower values except for Zn. The metal accumulation patterns indicated an enrichment of essential metals over non-essential metals. Comparison of metal concentration with maximum permissible limits of trace metals in foodstuff established in different countries as well as Malaysian Food Act 1961 and Food Regulations 1965 were observed. The values were well within safety levels.

Author keywords

Trace elements, soft tissues, Thai clavigera, Trace clavigera, Trace metals

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References
