

Background heavy metal concentrations (Cd, Cu, Ni, Pb, Fe and Zn) in modiolus sp. collected from the coast waters of Peninsular Malaysia: A preliminary study.

Abstract

The heavy metal concentrations in little black mussel *Modiolus* sp. have not been previously reported from Malaysia. In this study, the mussel species is widely distributed the coastal waters of Peninsular Malaysia and this mussel are found in Pantai Sri Tujuh [Kelantan], K. Kedah [Kedah], Kg. Sg. Berembang, Kg. Sg. Baru and Kuala Perlis [Perlis], and Bagan Tiang [Perak], Jeram and Sg. Janggut [Selangor]. From the 12 mussel populations collected in this study, the ranges of the metal concentrations ($\mu\text{g/g}$ dry weight) in the total soft tissues and shells were 2.246.73 and 4.159.53 for Cd, 10.0231.94 and 6.2810.17 for Cu, 1.3549.38 and 22.2248.45 for Ni, 4.7556.27, and 54.86112.31 for Pb, 5985582 and 158 544 for Fe, and 43.8162 and 1.5025.4 for Zn. To our knowledge, this is the first report on the metal concentrations of *Modiolus* sp. collected from the coastal waters of Peninsular Malaysia. The present data are important for future ecotoxicological, genetic biochemical and molecular studies in establishing this marine mussel as a good biomonitor.

Keyword: *Modiolus* sp.; Heavy metals; Coastal waters of Peninsular Malaysia.