

Ni, Pb and Zn concentrations in the green-lipped mussel, *Perna viridis* collected from the northern coastal waters of Peninsular Malaysia

Abstract

Continuous monitoring of heavy metal bioavailabilities and contamination in the marine environment by the Mussel Watch Program has been proposed in order to maintain the coastal environment at a sustainable level. This study focused on the heavy metal concentrations in different parts of *P. viridis* collected from Kuala Perlis (Perlis), Kg. Pulau Sayak (Kedah), Pantai Sri Tujoh and Pantai Bisikan Bayu (both in Kelantan). The results indicated that the accumulation of Ni, Pb and Zn by the byssus were significantly different from the rest of the tissues. In particular, the accumulation of Cu by the crystalline style was significantly higher ($P < 0.05$) from the other tissues. The above two findings were similar to those reported by Yap et al. (2005) and Yap et al. (2006a). However, the concentrations of Ni, Pb and Zn found in different parts of *P. viridis* were generally lower than those reported by Yap et al. (2006a) for the polluted eastern part of the semi-enclosed ecosystem in the Straits of Johore. The present findings are important in providing metal baseline information prior to the start of the newly launch Economic Development Corridor (NEDC) project.

Keyword: Mussel watch program; Northern part; Peninsular Malaysia; *Perna viridis*