

## **Trace metal concentrations in the different parts of *Perna viridis* collected from some jetties in the straits of Johore.**

### **ABSTRACT**

The Straits of Johore is a hotspot area of metal pollution in the southern part of Peninsular Malaysia. In this study, green-lipped mussels *Perna viridis* were collected from three sites from the Straits of Johore in April 2011. The mussel tissues were dissected into eight parts including byssus, crystalline style, foot, gill, gonad, mantle, muscle and remainder. The total shells and all the dissected eight parts were determined for nine trace metal concentrations (Ag, As, Co, Cr, Cs, Hg, Mn, Se and Sr) by using an Inductively Coupled Plasma-Mass Spectrometer, because these nine trace metals are rarely reported in the literature from Malaysia. Based on the present data, Sr and Mn have a very different accumulation pattern in mussels when compared with other trace metals. It is also found that the byssus is highly accumulative of Co and Cr, while the shell is also highly accumulative of Sr. When compared to the metal levels reported in the literature, the present data are considered low. Further studies are needed to confirm why Gelang Patah population had the highest levels of Ag, As, Cs, Mn and Se when compared to Senibong and Pantai Lido, based on some mussel parts. The present data in the different tissues of *P. viridis* are important for future reference.

**Keyword:** Trace metals; *Perna viridis*; The straits of Johore.