

Is gender a factor contributing to the natural variations in the accumulation of heavy metals (Cd, Cu, Pb and Zn) by the green-lipped mussel *Perna viridis* ?

Abstract

The concentrations of Cd, Cu, Pb and Zn were determined in mantles plus gills, gonads and the remaining soft tissues of males and females from a single population of the green-lipped mussel *Perna viridis*. In addition, the metal concentrations were determined in the total soft tissues of males and females mussels collected from 15 sampling sites in Malaysia. Females generally accumulated higher concentrations of metal than the males but the difference was not significant ($P > 0.05$). The correlation coefficients show higher R-values in the females than in the males. Although in the differences in the metal concentrations of the tissues were not significant ($P < 0.05$), gender was still an important factor in contributing to the variations of the concentrations of Cd, Cu, Pb and Zn in the soft tissues of *P. viridis* as were shown by multiple stepwise regression analysis.

Keyword: Gender; *Perna viridis*; Heavy metals; Cadmium; Copper; Lead; Zinc; Mussels.