

Heavy metal concentrations in the horse shoe crab, *tachypleus gigas* and sediment collected from Sg. Rambah, Western Johore, Peninsular Malaysia.

Abstract

The horseshoe crab *Tachypleus gigas* and sediments were collected from Sungai Rambah, a southwestern intertidal area of Peninsular Malaysia. The sediments, matured eggs, immatured eggs and other soft tissues of *T. gigas* were determined for concentrations of Cd, Cu, Pb, Ni, Fe and Zn. The results indicated that the immatured eggs had higher concentrations of Cd, Pb, Zn and Cu when compared to matured eggs and other soft tissues. On the other hand, the other soft tissues had higher concentrations of Ni and Fe when compared to both immatured and matured eggs. The metal concentrations in the sediments indicated that Pb and Zn were comparable to contaminated sediments in the literature and sediment quality guidelines while the concentrations of Cd, Cu and Ni were considered low and below polluted levels. These results are important for future reference.

Keyword: Horse shoe crab *Tachypleus gigas*; Heavy metal; Sg. Rambah.