Distribution of heavy metals in mangrove snail Cerithedea obtusa : A biological insight

ABSTRACT

Snails Cerithidea obtusa (9 populations) were collected, in 2010, from three selected sites (Lukut, Sepang Besar and Tumpat) from Peninsular Malaysia. The different parts (shell, digestive tract (DT), muscle, foot, cephalic tentacle (CT), remainder soft tissues (RST) and operculum) of the snails) were evaluated for the concentrations of Cu, Ni, Fe and Zn. Different levels of metals were found in the different snail parts in which the highest levels of Cu, Fe, Ni and Zn were observed in RST, operculum, CT and DT, respectively, confirming the results reported by Edward et al. (2010a). Generally, higher levels of metals were found in Tumpat populations with cases of higher number of shell whorls. This phenomenon could possibly be caused by unknown anthropogenic inputs besides natural sources in Tumpat with possibility of genetic polymorphism. Present findings should merit further investigation from an ecotoxicological genetic point of view on this popular edible mangrove snail species in this