Biomonitoring of heavy metals in intertidal snails: the importance of aquatic ecosystem management

ABSTRACT

Samplings of intertidal snails were done in January-April 2005 along the northern part of Peninsular Malaysia. Five taxa of intertidal snails (Pomacea canaliculata, Nerita lineata, Chicoreus capucinus, Thais sp. and Telescopium telescopium) were analysed for Cd, Cu, Fe, Ni, Pb and Zn. Based on the analyses of the different species, it can be concluded that 1) the highest and the lowest levels of metals in all species were Fe and Cd, respectively, which is in line with the abundance of these metals in the nature; 2) the levels of metals in the soft tissues and shells of the snails species were significantly different which were due to metal handling strategies and regulations; and 3) these metal accumulations in the soft tissues and shells shed lights on effective management of marine ecosystem in future studies.