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STUDY ON METAL  
CONCENTRATION OF SOME  
SELECTED SEA CUCUMBER SPECIES  
IN SRI LANKA

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### ABSTRACT

Sea cucumbers (Holothurians) are consumed in some Southeast Asian countries in processed and many other forms. In Sri Lanka only the body wall of sea cucumber is processed which is called Beche-de-mer and mainly export without consuming locally. The metal concentration of sea cucumbers in Sri Lanka has not been studied sufficiently. In this study metal concentration of some selected sea cucumber species was analysed. Fresh samples were collected from North-western sea of Kalpitiya and Dutch Bay area during October- November 2008 and October- November 2009 and they were eviscerated immediately after harvesting. Metals like Copper (Cu), Iron (Fe), Zinc (Zn), Lead (Pb), Cadmium (Cd), Cobalt (Co), Chromium (Cr) and Mercury (Hg) in species *Holothuria edulis* (Keels attaya), *H. atra* (Nari attaya), *Thelenotia anax* (Poona attaya), *H. scabra* (Jafna attaya), *H. spinifera* (Disco attaya), *Bohadschia* sp. (Sudu nool attaya), *Bohadschia similis* (Line nool attaya), *B. marmorata* (Dumburu nool attaya) and *Stichopus chloronotus* (Dambalaya) were analysed. Results were statistically analysed by MINITAB 14, a one- way Analysis of Variance (ANOVA) was performed, followed by Tukey's test for comparisons of significant difference. When consider a single metal all the mean concentrations among ten species were significantly different ( $p < 0.05$ ) and the same result was obtained for all analysed eight metals. From results obtained iron showed the highest accumulation ( $56.7 \pm 14.9$  mg/kg dry weight) and mercury showed the lowest accumulation ( $24.6 \pm 16.8$   $\mu$ g/kg dry weight).

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