

Seasonal variation of heavy metals (Cd, Pb and Hg) in sediments and selected edible fish in the Puttalam Estuary, Sri Lanka

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Seasonal variation of three heavy metals (Cd, Pb and Hg) in sediments and two fish species inhabiting in the Puttalam Estuary were studied to assess the heavy metal concentration in the sediments and biota. Data collection was carried out in 20 sampling points in February and September, 2016 in order to represent Northeast and Southwest monsoons, respectively. The laboratory analysis was carried out in accordance with standard methods. Results indicated that the average values of Hg, Pb and Cd in sediments were 0.0364, 0.002 and 0.00078 mg/kg during Northeast monsoon and 'Not Detected', 0.025, 2.43 mg/kg during Southwest monsoon respectively. No detectable concentrations of heavy metal were found in *Moolgarda seheli* while concentrations of 0.32 and 0.13 mg/kg of Hg were detected in *Plicofollis tenuispinis* during Northeast monsoon and Southwest monsoon respectively. As all the measured heavy metals in studied food fish are under the reference levels, it can be concluded that Cd, Pb and Hg concentrations in fish in the Puttalam Estuary are below the maximum allowable limits specified by the European Union for human consumption.

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