

B523 Monitoring of Heavy Metal Pollution Using Fish in the Youngsan River System

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Heavy metal concentrations(Fe, Mn, Zn, Cu, Pb and Cd) were determined in a total of 192 samples of 27 species of fish collected at 11 main and branch streams of Youngsan river system, 1995 ~ 1996. Detection rates of Pb in fish samples were 80 ~ 100% in the all streams except Hampyong stream, 58%. On the other hand, those of Cd were various from 20% to 100%. Of 11 streams examined, 7 streams for Pb, 1 stream for Cd, and 7 streams for Zn exceeded the legal limit levels for hazardous substances in fish set by foreign countries, 0.5ppm for Pb, 0.05ppm for Cd and 40ppm for Zn.

B524 Studies on the Removal of Cd and Zn in Wastewater by *Rumex maritimus* L.

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To investigate the possibility of biomonitoring of heavy metal pollution, a study was performed to investigate the heavy metal removal ability, accumulation ability and induction of metal-binding protein as detoxification process using *Rumex maritimus* L. After *R. maritimus* L. was exposed to cadmium and zinc for 5 days, removal and accumulation rate of heavy metal, DO and pH in medium were measured. To isolate the metal-binding protein, the root extractions of *R. maritimus* L. chromatographed on the anion exchanger QAE-Sephadex A-25.