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The Re-assessment of PCB Congener patterns of Fish Collected from the St. Lawrence River and its Tributaries

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For several years the environmental contaminant assessment laboratory at the University at Albany has studied the effects of Polychlorinated Biphenyls (PCBs) in the St. Lawrence River basin, with a specific focus on the Mohawk Nation at Akwesasne. Three aluminum foundries operated by General Motors, Alcoa and Reynolds Metals, used PCBs as hydraulic fluid, which subsequently leaked and were washed directly into the St. Lawrence River and its tributaries. Five years ago massive dredging took place at the Reynolds site, and two years ago at Contaminant Cove, the small cove immediately adjacent to the major landfill at the General Motors site. My current project is to analyze fish collected at Akwesasne and to study the patterns of PCB congeners in these fish. My results will then be compared to those that were collected prior to dredging, which have already been analyzed. The major question that is posed is whether dredging has resulted in a decrease in the levels of PCB congeners or in its process, dredging has stirred up and released more contaminants thus causing an increase in the PCB concentrations in fish. It is expected that dredging will result in reduced levels ultimately, but we do expect that there would be a transient elevation. We hope to show that this elevation is short-lived and that locally caught fish are now less contaminated than they were in the past.