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## Chlorinated, Brominated, And Perfluorinated Contaminants In Livers Of Polar Bears From Alaska

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The existence of two subpopulations of polar bears in Alaska, the Beaufort Sea and the Chukchi Sea populations, has been documented. In this study, differences in concentrations and profiles of organochlorine pesticides, polychlorinated biphenyls (PCBs), polybrominated diphenyl ethers (PBDEs), and perfluorinated acids were examined in livers of polar bears from the two subpopulations in Alaska. Concentrations of most of the organohalogens analyzed were greater in the Beaufort Sea subpopulation than in the Chukchi Sea subpopulation, except for HCHs and perfluorononanoic acid (PFNA), which were high in samples from the Chukchi Sea subpopulation. Concentrations of chlordanes, PCBs, and perfluorooctanesulfonate (PFOS) were significantly different between the two subpopulations. Chlordane was the predominant contaminant in the Beaufort Sea population, and PFOS was the major contaminant in the Chukchi Sea population. Polar bears from the Beaufort Sea showed significantly higher proportions of more highly chlorinated PCBs than those from the Chukchi Sea. Concentrations of several perfluorinated acids were significantly correlated. Overall, the concentrations and profiles of organohalogens analyzed in the two subpopulations of polar bears suggest differences in the sources of exposures between the two regions of Alaska.