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Title: PCBs in Fish from Two Maine Atlantic Salmon Rivers

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Abstract: An environmental evaluation of habitat conditions is a critical component in any species recovery program. Two "Downeast" Maine rivers, the Dennys River and East Machias River, support Atlantic salmon *Salmo salar* – a species recently considered for inclusion on the federal Endangered and Threatened Species List. To assess potential contaminant threats to salmon parr in the two river, we collected and analyzed resident fish (*Micropterus dolomieu*, *Salvelinus fontinalis*, *Catostomas commersoni*) for PCBs and other environmental contaminants. Forty fish were analyzed for over 90 PCB congeners, including *non-ortho*, *mono-ortho*, and *di-ortho* substituted congeners. Total PCB concentrations were highest in whole-body smallmouth bass (0.131 µg/g ww), white sucker (0.046 µg/g), and brook trout (0.031 µg/g) from the Dennys River. Lower PCB concentrations were detected in smallmouth bass (0.023 µg/g) and white sucker (0.012 µg/g) from the East Machias River. The predominant *non-ortho* PCB congeners in bass were #126 and #77, with the highest #126 concentration occurring in Dennys River bass (88.5 pg/g ww). PCBs in Dennys River bass and suckers were comprised primarily of CL5 and CL8 substituted congeners. PCB homolog patterns in East Machias River fish were similar to the Dennys River, except CL4 substituted congeners were detected in greater amounts particularly in white suckers.