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**Levels of polychlorinated dibenzo-*p*-dioxins, dibenzofurans, and biphenyls in southern Mississippi catfish and estimation of potential health risks**

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Fish consumption has been classified as one of the primary pathways of exposure to polychlorinated dibenzo-*p*-dioxins, dibenzofurans (PCDD/Fs) and biphenyls (PCBs). In this study, we evaluated tissue levels of the 17 laterally substituted PCDD/Fs, 12 dioxin like PCBs, and 97 non-dioxin-like PCBs in a number of wild-caught and farm-raised catfish collected throughout southern Mississippi. Total lipid-adjusted TEQ and non-dioxin-like PCB concentrations in wild-caught catfish fillets were significantly higher than concentrations in farm-raised fillet samples. The percent contribution of PCDDs, PCDFs, and dioxin-like PCBs to mean total TEQ varied between wild-caught and farm-raised samples as well as by collection site for wild-caught catfish. The non-dioxin-like PCBs that contributed the most to total PCB concentrations also differed between wild-caught and farm-raised samples. Regardless of whether samples were farm-raised or wild-caught, estimated cancer risks associated with consumption of these catfish were less than  $27.0E-06$ . Overall, results of this study indicate that levels of dioxin-like compounds and PCBs in Mississippi catfish are similar to those measured in more recent studies in the US and that levels of these compounds appear to be decreasing in this food source.

Keywords: Dioxin, PCDDs, PCDFs, PCBs, Biomonitoring, Fish