**Preliminary screening of PCB and dioxins/furans contamination in sediments of Escambia Bay**

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|  Assessment of Environmental Pollution and Community Health in Northwest Florida |
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The Lower Escambia River and Escambia Bay have a long documented history of pollution from industrial sources in Escambia County, FL, and also upriver in Alabama where the river is called the Conecuh. As part of environmental health studies in Escambia and Santa Rosa counties, UWF's CEDB found that blue crabs and oysters collected from western Escambia Bay locations had relatively higher loads (TEQs) of dioxins/furans and dioxin-like PCBs than samples collected from eastern Escambia Bay. Recent findings indicate that mullet and large mouth bass collected from Lower Escambia River contain relatively high concentrations of total PCBs and dioxins/furans/dioxin-like PCBs. The PCB concentrations found in largemouth bass from Lower Escambia River were about 65 times higher than those found in samples from Upper Escambia River, indicating that the impacts of releases of PCBs from local sources more than three decades ago are persistent, and the accumulation of these compounds in harvestable species continues to pose threats to human health.

Because of the paucity of information on sediment contamination in the Escambia Bay system, notably the limited spectrum of past analyses for PCB congeners and none for dioxins/furans, it is difficult to ascertain the geographical extent and levels of these toxic chemicals in the bay. Such information is essential for assessing potential exposure of marine and human populations to toxic chemicals and environmental impacts to adjacent water bodies. This project will determine the levels of PCBs (complete congener profiles) and dioxins/furans in sediment samples taken at 20 locations in the Escambia Bay, including some sites in the Lower Escambia River. The findings from this screening study will aid in the design of a more comprehensive analysis of pollutant profiles in Escambia Bay. The outputs will also be useful in evaluating options for remediation, so as to improve environmental health and to reduce exposure risks.