Ecological status of the St. Louis River system, as informed by spatially comprehensive surveys and comparison to coastal wetlands elsewhere.

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Extensive data on biota and the physical/chemical environment were collected across the lower St. Louis River in 2004-2007 as part of multiple studies undertaken by EPA. The 2005-2007 work provides a spatially highly-resolved assessment of conditions across the system, while the 2004 survey (that sampled Allouez, Pokegama, and Rask Bays within the St. Louis system as well as many other coastal wetlands across the Great Lakes) places the system's condition in a broader context that helps to inform restoration and management targets. Geo-referenced data collected by EPA includes habitat structure (sediment type, vegetation type and cover); water quality (temperature, conductivity, pH, dissolved oxygen, turbidity, nutrients, cations, anions, particulate matter, dissolved organic carbon); primary producers (Chl a, periphyton taxa); and faunal composition (benthic invertebrates, zooplankton, fish – all enumerated to genus or species). Besides describing the data we have available to share, this poster presents maps and ordination diagrams showing spatial variability across the system (both a longitudinal gradient and depth zonation are evident), and highlights the condition of St. Louis River wetlands relative to others in the Great Lakes (relatively poor for Lake Superior but good compared to the lower lakes). [*This abstract does not necessarily reflect U.S. EPA policy*.]