Stable isotope tracers of process in Great Lakes food webs

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Stable isotope analyses of biota are now commonly used to discern trophic pathways between consumers and their foods. However, those same isotope data also hold information about processes that influence the physicochemical setting of food webs as well as biological processes operating within them. Food web baselines reflect a blend of natural and anthropogenic influences at local, landscape, and continental scales. In turn, spatial gradients in isotope ratios can be used to reveal phenomena such as horizontal and vertical patterns in animal movement and multisystem support of biota. We will use data gathered from Great Lakes food webs to explore these concepts.