

The Fish Ecology of Place on the St. Lawrence River: What Does Long-Term Research Say About Responses to a Changing Environment?

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Many fish ecologists get to travel the world and study charismatic fish fauna in exciting and foreign locales. I've taken a different approach whereby I do study amazing fish in an extraordinary location, but accomplish that from the same place, the upper St. Lawrence, year after year. I'm not unique in this pursuit of this 'ecology of place' and suspect many of you are learning from the same streams, lakes and rivers over time. To some it may seem boring, doing the same thing over and over – it is after all Einstein's definition of scientific 'insanity'. But we oftentimes observe a different and new result and the accumulation of data yields patterns and generates hypotheses we can only speculate about if lacking this vital repeated sampling. This is the science of monitoring and when coupled with targeted research can yield fascinating insights into dynamics of fish in aquatic ecosystems. In this presentation I will share the development of the TIBS field station with its mission of better aquatic resource conservation by applying ecosystem-based science toward applied management action and decision making. Along the way we hope to provide exceptional educational opportunities. Through creation of sampling indices focused on the nearshore with many linked research studies and collaborations we've made some progress in understanding a section of large river I never thought we'd have a clue about. I'll share some examples and stories from this journey and what it's teaching us about a sampling of significant fishery resource management challenges.