

Researching Fossil and Sedimentary Records of Lake Histories: Focusing on the Western Finger Lakes

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7:00 PM (via [Zoom](#))

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Freshwater ecosystems, like lakes, have long been influenced by anthropogenic activities such as agriculture, climate, and industry. Lake ecosystems are especially affected in terms of shifts in community dominance, invasion of foreign fauna, harmful cyano-algal blooms caused by agricultural run-off and introduction/regulation of sediment and nutrients. These anthropogenic stressors alter the water circulation, trophic state, and biodiversity of a given lake system. Development of tools to monitor the impact humans have on lake environments is necessary to identify at risk or severely altered habitats as well as to track the remediation of previously impacted habitats. This talk highlights a preliminary investigation and assessment of the biodiversity and geohistorical record of three Finger Lakes: Conesus, Canadice, and Honeoye in Western New York. All three lakes show a diverse living invertebrate community representing a modern novel ecosystem representing post-impact recovery after eutrophication of the lakes occurred during the 20th century. The geohistorical record of Conesus Lake evaluated using cored lake sediments preserves a clear signal of European settlement and industrial delivery of pollutants into the lake. This talk will showcase the application of paleobiological and sedimentological techniques to establish objective baselines for measuring the success of remediation and restoration efforts in aquatic ecosystems.



Zoom link QR code