

## **Research on Lake Zurich at the Limnological Station: The past, the present, and the future**

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Lake Zurich provides crucial ecosystem services to over a million residents and serves as a bona fide model system for a large pre-alpine lake experiencing considerable anthropogenic pressure. While research on this lake dates back more than a century, it intensified significantly with the establishment of a limnological station in 1977, situated directly at the lake. Research interests have shifted over the decades, with new ideas and topics introduced by successive leadership and a steady stream of incoming students and scientists. At the same time, some continuity remains, exemplified by a sustained focus on the lake's most important primary producer, the toxic cyanobacterium *Planktothrix rubescens*. Other long-term research interests on planktonic prokaryotes and eukaryotes have undergone substantial transitions in terms of methods and state-of-the-art approaches but have nevertheless retained their distinct "flavour," such as a focus on population dynamics, ecophysiology, and community ecology. Finally, lake monitoring, combined with long-term data provided by Zurich Water Supply, has added a global change perspective to our understanding of the lake ecosystem. In our presentation, we will highlight key findings that have shaped our current understanding of Lake Zurich and discuss the concepts that inspire our future research on its microbial inhabitants.