Reconstructing climate change in the past 200 000 years in the Neotropics: Identifying impact on aquatic ecosystems, trophic changes and lake-level fluctuations based on subfossil Chironomidae of Lake Petén Itzá (Guatemala)

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Research team


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Research objective

The objective of the project is to analyse a continuous sequence of exceptionally long lake sediment (0 – 200 ka) sampled from Lake Petén Itzá (Guatemala) by the Lake Petén Itzá Scientific Drilling Project. Conducting a study on sediments from the lake is a unique opportunity to contribute to international research on global climate change, and to perform analyses in continuous sediments accumulated over the last 200,000 years. Our research objectives are:

1) to reconstruct the climate oscillation of the Late Pleistocene (especially extreme events) and their effect on an aquatic ecosystem

2) to reconstruct changes in the trophic status and water level fluctuation in Lake Petén Itzá over the last 200,000 years

3) to study how Chironomidae evolved in the lake, as well as to track back colonization, species richness and diversity changes over the last 20 thousand years.

Publications

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For more information visit the website: https://www.researchgate.net/project/Reconstructing-climate-change-in-the-past-200-000-years-in-the-Neotropics-Identifying-impact-on-aquatic-ecosystems-trophic-changes-and-lake-level-fluctuations-based-on-subfossil-Chironomidae-of-Lake