STUDIES ON THE LAMINATED SEDIMENTS OF LAKE GOŚCIĄŻ, CENTRAL POLAND

by

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Lake Gościąż is a unique site in central Europe; its sediments reveal annual lamination throughout the last 12 000 years, with some disturbances occurring only in the top part of the sediment.

The multidisciplinary studies of the site which started in 1987, aim to reconstruct the changes of lacustrine and terrestrial ecosystems based on an absolute time scale, and to calculate the rates of environmental changes caused by natural factors (climate, soils, hydrology) and of those stimulated by human activities, during the different periods of lake history.

Efforts are being made to reconstruct the time scale of the youngest disturbed part of the sediments by using freezing techniques for coring, and by seeking correlations with palaeomagnetic and dendrochronologic curves. If we succeed, it will be possible to build up an absolute time scale for the full Late Glacial and Holocene periods and to correlate it with the isotope and dendrochronologic scales.

The studies on the Lake Gościąż sediments, coordinated by M. Ralska-Jasiewiczowa, are carried out by a working group of ca 15 Polish specialists, representing different disciplines of natural, geological, chemical, and physical sciences, complemented by scientists from foreign countries like Sweden, Finland, the Netherlands, France, and the USA.

M. Ralska-Jasiewiczowa participates as pollen and plant macrofossil analyst.

The Lake Gościąż project has been proposed as a reference study on the rates of palaeoecological and climatic changes in central Europe during the Late Glacial and Holocene periods, in the International Program IGBP – Global change: geosphere – biosphere.

References

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