The $\delta^{13}C$ profile reveals in general similar shape to that of ^{18}O, but the absolute values of changes at transitions are much smaller, and a general increase of ^{13}C concentration is observed.

Comparison with records from the Lake Gościąż sediments

This study points to interesting material which could deliver new information on climatic parameters reflected by vegetation cover and stable isotopes in lake sediments, at the point distant from the maximum of the Vistulian glaciation. Especially interesting is the comparison of reconstructions with those for Lake Gościąż, since Lake Perespilno is situated in an area of weaker influence of the Atlantic ocean, and characterized by more continental climate. At present, the annual amplitude of temperature in Perespilno area is 2–3°C higher than in Gościąż region (Wójcik & Przybylak, Chapter 2.3).

The $\delta^{18}O$ curves and selected pollen taxa from both lakes are compared in Fig. 7.55. To derive an absolute time scale for Lake Perespilno data, the major $\delta^{18}O$ changes in both lakes were assumed to be synchronous. This, however, requires broadening of the gap between samples 200 and 205 to ca. 320 years. The boundaries of *Artemisia*-Chenopodiaceae PAZ, corresponding to the Younger Dryas period, are not exactly simultaneous with the major shifts of $\delta^{18}O$, though the rates of changes of most indicator taxa in both lakes are similar. Unlike in Gościąż, most taxa (e.g. *Ulmus, Artemisia, Juniperus*) show 50–100 yr delay in response to climate amelioration at the beginning of Holocene. Surprisingly, major changes in vegetation precede those of $\delta^{18}O$ at the onset of Younger Dryas. Another distinct difference is the amplitude of $\delta^{18}O$ changes, and absolute percentages of many pollen taxa. The more precise synchronization of records from both lakes and interpretation of observed differences will be a matter of further study.

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