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## Base of the Quaternary System based on microfossil biostratigraphy

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We have studied the timing of heavy glaciation in the high latitude to polar regions based on the analysis of nannofossil assemblages. The results indicate that the nannofossil assemblages change from high diversity temperate flora to polar one in 2.75Ma at Site 911 (Arctic Ocean) and Sites 881, 882, 883, 887 (North Pacific). IRD also drastically increased in this timing in these areas. On the other hand, nannofossils change to temperate assemblages at 1.8Ma, which is correlated to Calabrian base in these areas. This indicates that the intensification of northern hemisphere glaciation related to the Pliocene/Pleistocene boundary, occurred in 2.75Ma near the Gelasian base.

Keywords: microfossil, Quaternary, Pleistocene, Gelasian, Calabrian, glaciation