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6 April 2016/Kiel. The North Atlantic is one of the key regions controlling Northern



Professor Wilson, who is Head of Palaeoceanography and Palaeoclimate Research Group at the University of Southampton, a unit within the School of Ocean and Earth Science based at the National Oceanography Centre said: “The mechanism driving these expansions of southern sourced water into the deep Atlantic still needs working on. It is thought that North Atlantic Deepwater formation is sensitive to glacial freshwater inputs to the ocean in the North. Yet our new data hint that these southern-hemisphere invasions may even predate the onset of major northern hemisphere glaciation. Counter intuitively our findings may therefore suggest that they were driven from the south.”

Dr. Marcus Gutjahr, project partner at the GEOMAR Helmholtz Centre for Ocean Research Kiel added: “The finding of a deep Atlantic circulation regime such as seen during the last Glacial Maximum already as early as 2.7 Million years ago is remarkable. Such an extreme glacial circulation regime was only expected during peak glaciations of the past few 100,000 years, not earlier. Yet it appears that these early glaciations followed in parts very similar patterns to the latest most extreme glaciations.”

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Lang, D.L., I. Bailey, P.A. Wilson, T.B. Chalk, G.L. Foster and M. Gutjahr, 2016: Incursions of southern-sourced water into the deep North Atlantic during late Pliocene glacial intensification. *Nature Geoscience*, DOI: 10.1038/NGEO2688

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