



The potential for synchronising North Atlantic records using the Vedde Ash as a marker event.

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Abstract for ORAL PRESENTATION

Synchronisation of highly resolved palaeoclimate records, as a basis for testing the leads and lags in the climate system during the Last Termination, is a core aim of the INTIMATE initiative. The use of far-travelled volcanic ash deposits for this purpose is a key component of the INTIMATE strategy (Lowe et al., 2001, 2008). As part of ongoing research into the potential of tephrochronology for the correlation of sequences in continental Europe, we report on evidence for the presence of the Vedde Ash in central European lakes (Blockley et al., 2007). We then review new evidence for the wider distribution of the Vedde Ash, generated within a project funded under the Natural Environment Research Council RAPID Climate Change programme (Lowe et al., 2005). On the basis of major element geochemistry and stratigraphic setting, we show the potential this tephra, offers as a widespread marker throughout much of the North Atlantic, in Greenland ice cores and in a large sector of continental Europe. Before this potential can be fully realised, however, it is essential to demonstrate that the Vedde Ash has a diagnostic and unambiguous chemical signature. We conclude by reporting the strategy we have evolved for testing the geochemical consistency of glass shards assigned to the Vedde Ash collected from multiple and diverse stratigraphical records.

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