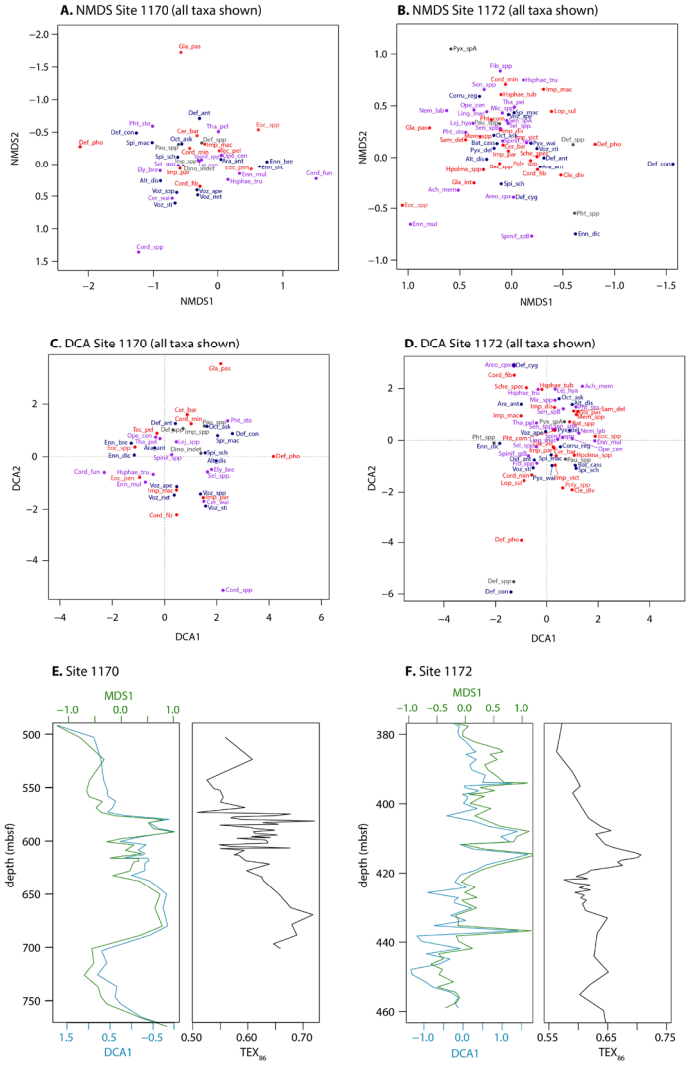
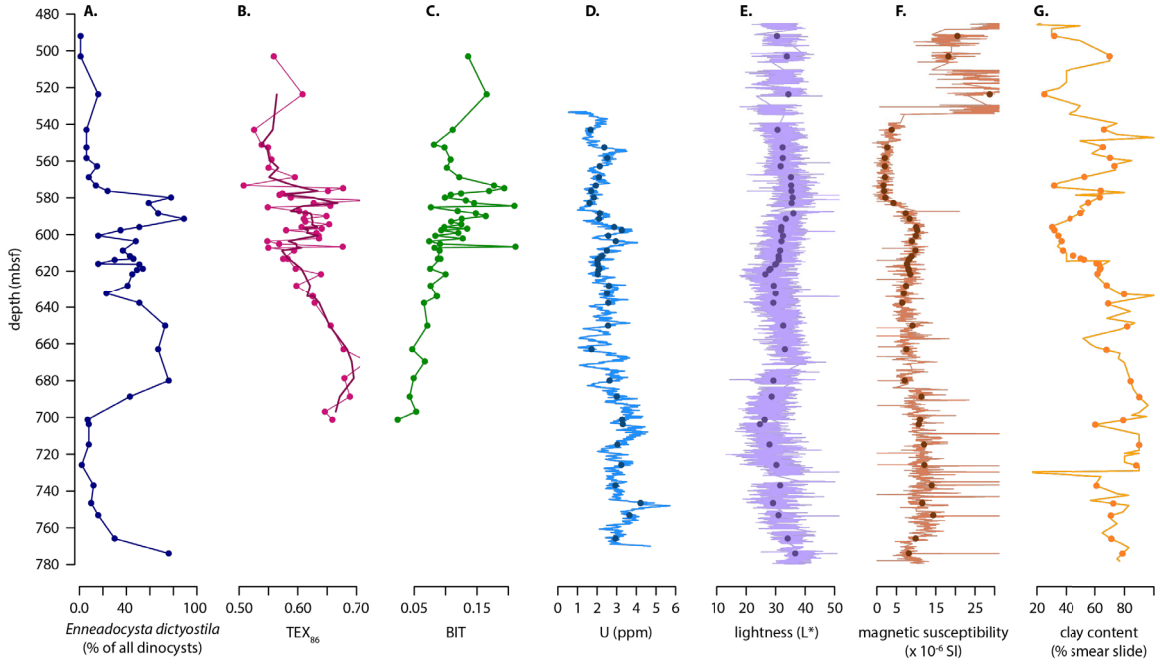
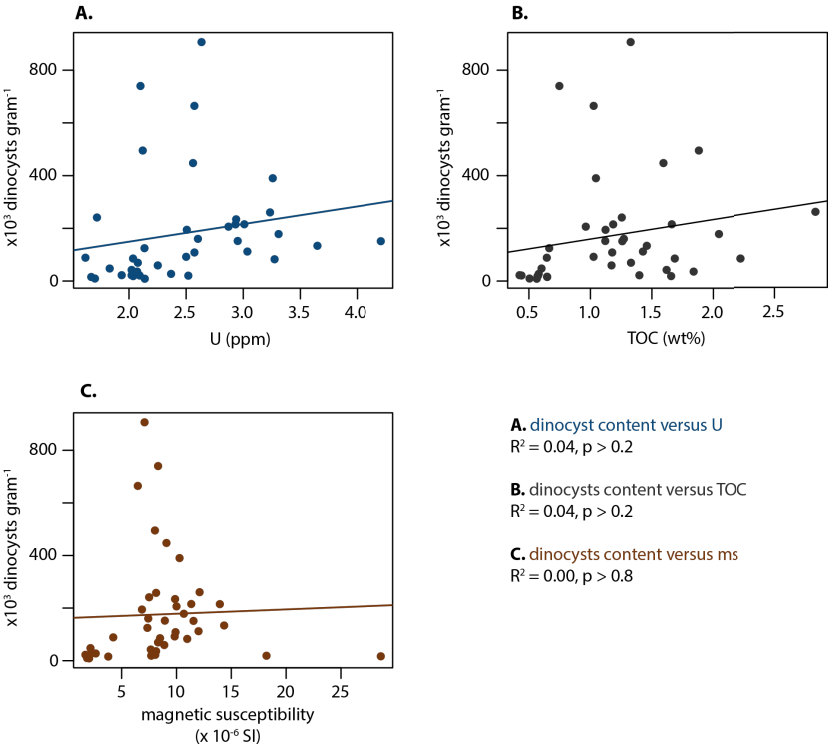
Supplementary figures



Supplementary Figure 1. Additional ordination results. Nonmetric multidimensional scaling (NMDS) ordination diagram for the dinocyst assemblage data of Site 1170 **(a)** and Site 1172 **(b)**. Detrended correspondence analysis (DCA) ordination diagram for the dinocyst assemblage data of Site 1170 **(c)** and Site 1172 **(d)**. Species scores in a-d as circles, colour-coded by biogeographic affinity (red, mid-low latitude; purple, cosmopolitan; blue, endemic; grey, not assigned). Full names for dinocyst abbreviations can be found in the Supplementary Datafile. First axis of DCA (blue) and NMDS (green) analysis of Site 1170 **(e)** and Site 1172 **(f)**, together with the respective TEX_{86} records (black).



Supplementary Figure 2. Environmental proxy records over the MECO interval of Site 1170, as used in CCA analysis (b-g). Original data plotted as line, data interpolated to depth of dinocyst samples plotted as dots. Plotted against depth in metres below sea level. **(a)** Relative abundance of *Enneadocysta dictyostila* (percentage of total dinocyst assemblage; dark blue dots and line). **(b)** TEX_{86} (pink dots and line), with three-point moving average (purple lines). **(c)** BIT (green dots and line). **(d)** Sedimentary uranium content (ppm; blue dots and line). **(e)** Spectrophotometric lightness (CIELAB L*; purple dots and line). **(f).** Core-measured magnetic susceptibility (x 10^{-6} SI). **(g).** Clay content (% of smear slide). Data in panels d-g from Exon et al. (2001).



Supplementary Figure 3. Scatter plots and regression analysis of sedimentary dinocyst content as a function of selected proxy records of Site 1170, indicating no significant correlation. **(a)** Dinoflagellate cyst content (cysts per gram of dry sediment) against uranium content (ppm). **(b)** Dinoflagellate cyst content (cysts per gram of dry sediment) against total organic carbon content (weight percentage). **(c)** Dinoflagellate cyst content (cysts per gram of dry sediment) against magnetic susceptibility (x 10^{-6} SI). U, TOC and ms data from Exon et al. (2001).