README document for Supplementary Materials to "A synthesis of marine sediment core δ^{13}C data over the last 150,000 years" by K. I. C. Oliver et al.

The Supplementary Materials consist of the this README file, a file containing two Supplementary Figures (oliver_d13Csuppfigs.pdf), and 34 comma-seperated-variable (CSV) files containing processed the 150 kyr δ^{13}C dataset, with error information.

Detailed information on each CSV file may be found in the header to that file. A summary is provided here. Each column of the CSV files represents a record from a single core (some cores contain multiple records and therefore have multiple columns). Each row represents a 2 kyr timeslice between 1 ka and 149 ka. There are 17 files containing Atlantic and Arctic data and 17 containing non-Atlantic data. The grid in each of the 17 files for each region provides information on the same record for the same timeslice, given the same row and column indices. The 17 files therefore represent 17 different variables. These variables are listed in full below, but include $\Delta_{LGM}\delta^{13}$C data, absolute δ^{13}C total error estimates and a decomposition of the errors, for both benthic and planktonic data. Some columns in a given file may be filled entirely with the bad data flag -9999. This can occur for several reasons: e.g. there is no data of the correct type (i.e. planktonic or benthic) from that core; there is data but its resolution is poorer than 6 kyr, or the error estimate exceeds 1 ‰ throughout the record. Any records without LGM data provide no $\Delta_{LGM}\delta^{13}$C data, and any records from unusual species provide no absolute δ^{13}C data. For this reason, δ^{13}C estimates that are neither referenced to the LGM, nor have been corrected for the uniform species error component, are also provided. The CSV files are suitable for opening directly into spreadsheets or into programming software such as Matlab.

A full list of files in the Supplementary Materials is as follows:

oliver_d13CsuppREAME.pdf – This file.

oliver_d13Csuppfigs.pdf – Supplementary Figures showing $\Delta_{LGM}\delta^{13}$C timeslices for 63 ka and 137 ka, respectively.

Atl_fDd13Cben_v5_1.csv – Processed Atlantic benthic $\Delta_{LGM}\delta^{13}$C data at 2 kyr intervals.

Atl_fDd13Cplk_v5_1.csv – Processed Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data at 2 kyr intervals.

Atl_fd13Cben_v5_1.csv – Processed Atlantic benthic δ^{13}C data at 2 kyr intervals.

Atl_fd13Cnben_v5_1.csv – Processed Atlantic benthic δ^{13}C data at 2 kyr intervals, with no uniform species correction applied.

Atl_fd13Cnplk_v5_1.csv – Processed Atlantic planktonic δ^{13}C data at 2 kyr intervals, with no uniform species correction applied.

Atl_fd13Cplk_v5_1.csv – Processed Atlantic planktonic δ^{13}C data at 2 kyr intervals.

Atl_ffhatben_v5_1.csv – Kernel data density (temporal resolution) of raw data used construct processed Atlantic benthic δ^{13}C data.

Atl_ffhatplk_v5_1.csv – Kernel data density (temporal resolution) of raw data used construct processed Atlantic planktonic δ^{13}C data.

Atl_fsigDdben_v5_1.csv – Total 2σ error estimate for Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Atl_fsigDdplk_v5_1.csv – Total 2σ error estimate for Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data.

Atl_fsigdben_v5_1.csv – Total 2σ error estimate for Atlantic benthic δ^{13}C data.

Atl_fsigdplk_v5_1.csv – Total 2σ error estimate for Atlantic plantonic δ^{13}C data.

Atl_fsigphyben_v5_1.csv – Phytodetritus 2σ error estimate for Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Atl_fsigspeben_v5_1.csv – Species 2σ error estimate for Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Atl_fsigspeplk_v5_1.csv – Species 2σ error estimate for Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data.

Atl_fsigsplben_v5_1.csv – Spline 2σ error estimate for Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Atl_fsigsplplk_v5_1.csv – Spline 2σ error estimate for Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data.

Glo_fDd13Cben_v5_1.csv – Processed non-Atlantic benthic $\Delta_{LGM}\delta^{13}$C data at 2 kyr intervals.

Glo_fDd13Cplk_v5_1.csv – Processed non-Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data at 2 kyr intervals.

Glo_fd13Cben_v5_1.csv – Processed non-Atlantic benthic δ^{13}C data at 2 kyr intervals.

Glo_fd13Cnben_v5_1.csv – Processed non-Atlantic benthic δ^{13}C data at 2 kyr intervals, with no uniform species correction applied.

Glo_fd13Cnplk_v5_1.csv – Processed non-Atlantic planktonic δ^{13}C data at 2 kyr intervals, with no uniform species correction applied.

Glo_fd13Cplk_v5_1.csv – Processed non-Atlantic planktonic δ^{13}C data at 2 kyr intervals.

Glo_ffhatben_v5_1.csv – Kernel data density (temporal resolution) of raw data used construct processed non-Atlantic benthic δ^{13}C data.

Glo_ffhatplk_v5_1.csv – Kernel data density (temporal resolution) of raw data used construct processed non-Atlantic planktonic δ^{13}C data.

Glo_fsigDdben_v5_1.csv – Total 2σ error estimate for non-Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Glo_fsigDdplk_v5_1.csv – Total 2σ error estimate for non-Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data.

Glo_fsigdben_v5_1.csv – Total 2σ error estimate for non-Atlantic benthic δ^{13}C data.

Glo_fsigdplk_v5_1.csv – Total 2σ error estimate for non-Atlantic plantonic δ^{13}C data.

Glo_fsigphyben_v5_1.csv – Phytodetritus 2σ error estimate for non-Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Glo_fsigspeben_v5_1.csv – Species 2σ error estimate for non-Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Glo_fsigspeplk_v5_1.csv – Species 2σ error estimate for non-Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data.

Glo_fsigsplben_v5_1.csv – Spline 2σ error estimate for non-Atlantic benthic $\Delta_{LGM}\delta^{13}$C data.

Glo_fsigsplplk_v5_1.csv – Spline 2σ error estimate for non-Atlantic planktonic $\Delta_{LGM}\delta^{13}$C data.