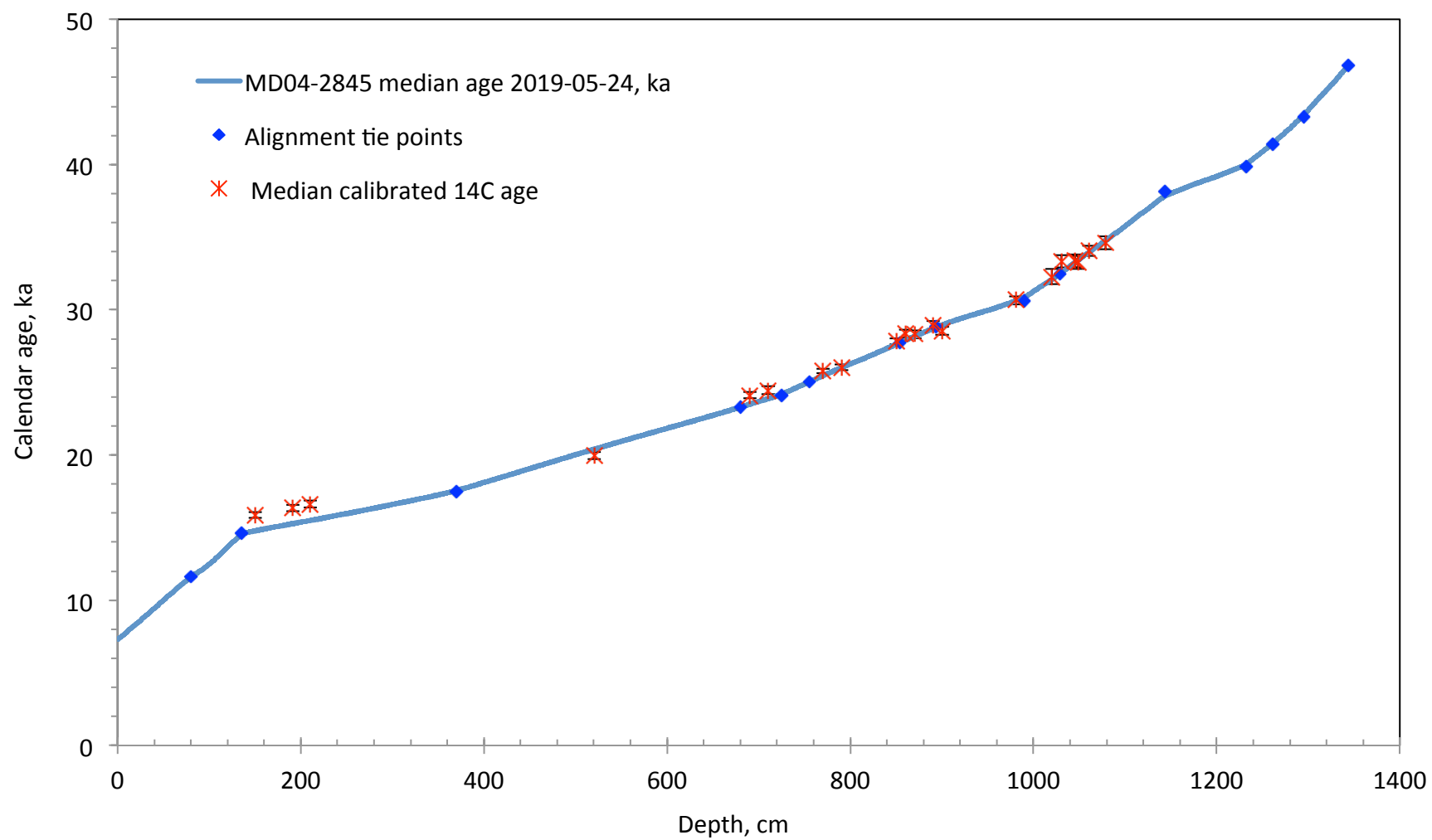# Supplementary figures

Fig. S1. Example of comparison of alignment age-depth model and calibrated ^{14}C ages. In blue: chosen alignment pointers and resulting age model computed by Undatable for core MD04-2845. Red crosses: calibrated ^{14}C ages assuming no other change to the modern surface reservoir age than the one induced by changes in atmospheric pCO_2. Modelled ages must be smaller or equal to the latter in order to avoid negative surface reservoir ages.
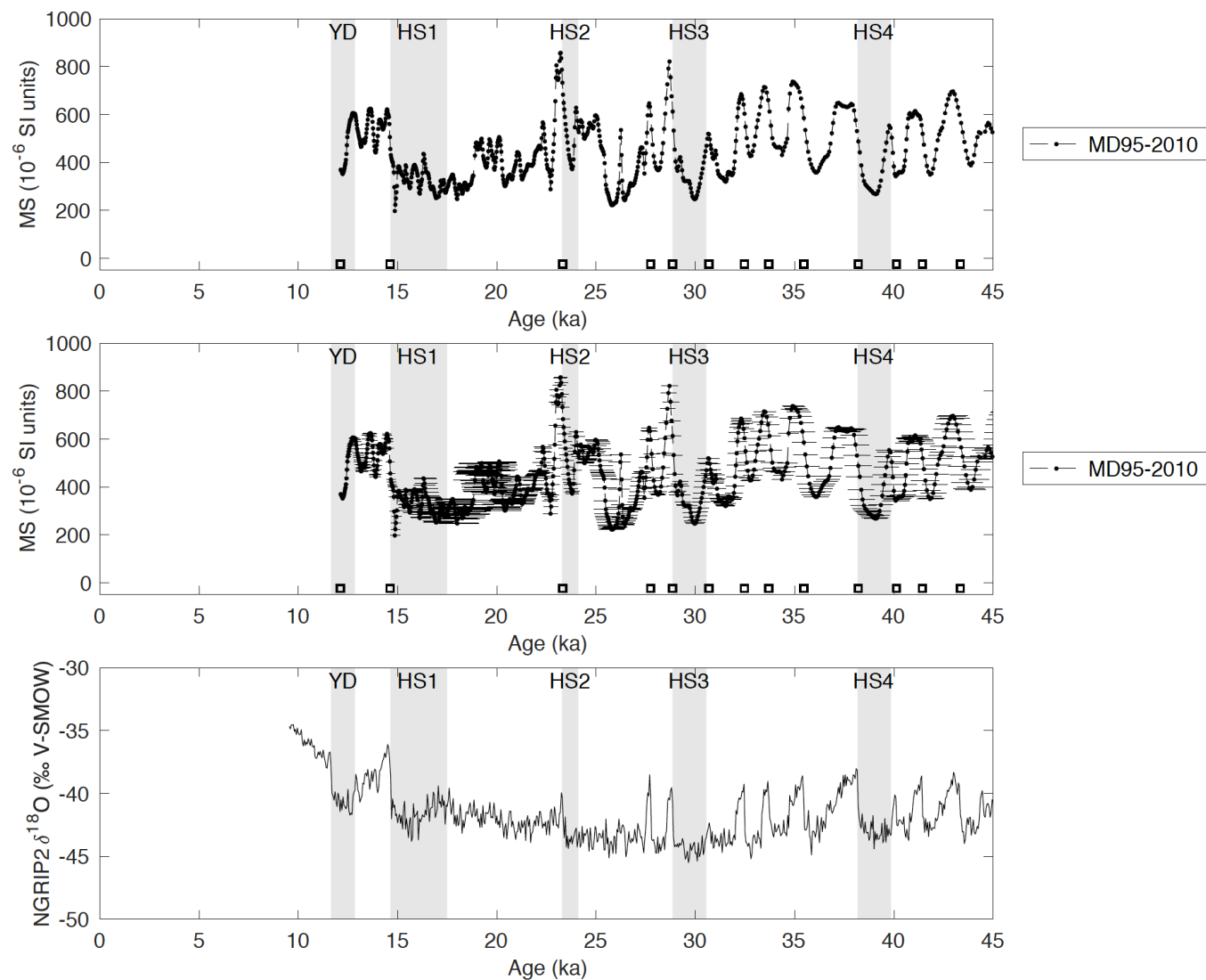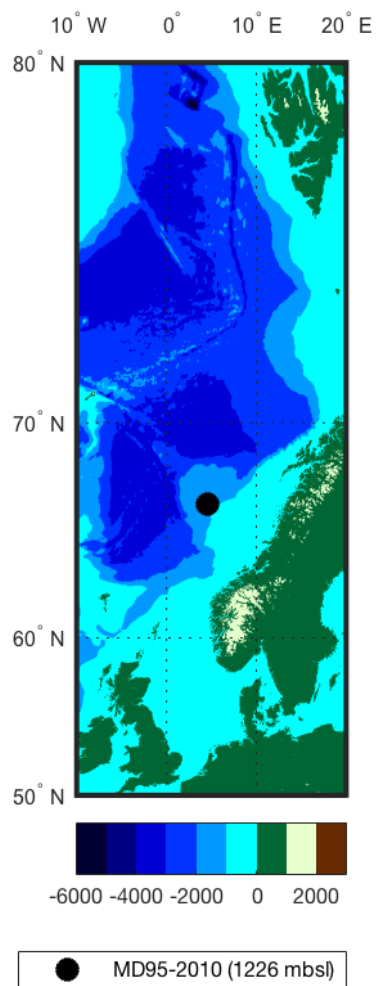
Fig. S2. Example of Nordic Seas core dated by alignment of its magnetic susceptibility record to the NGRIP ice δ¹⁸O record. Top panel: magnetic susceptibility of core MD95-2010[61]. **Middle panel:** same as top panel with dating error bars (68.27% confidence intervals). **Bottom panel:** NGRIP ice δ¹⁸O record on the GICC05 age scale[58]. Grey bands highlight the Younger Dryas and Heinrich stadials 1-4 chronozones as defined in Table 2.
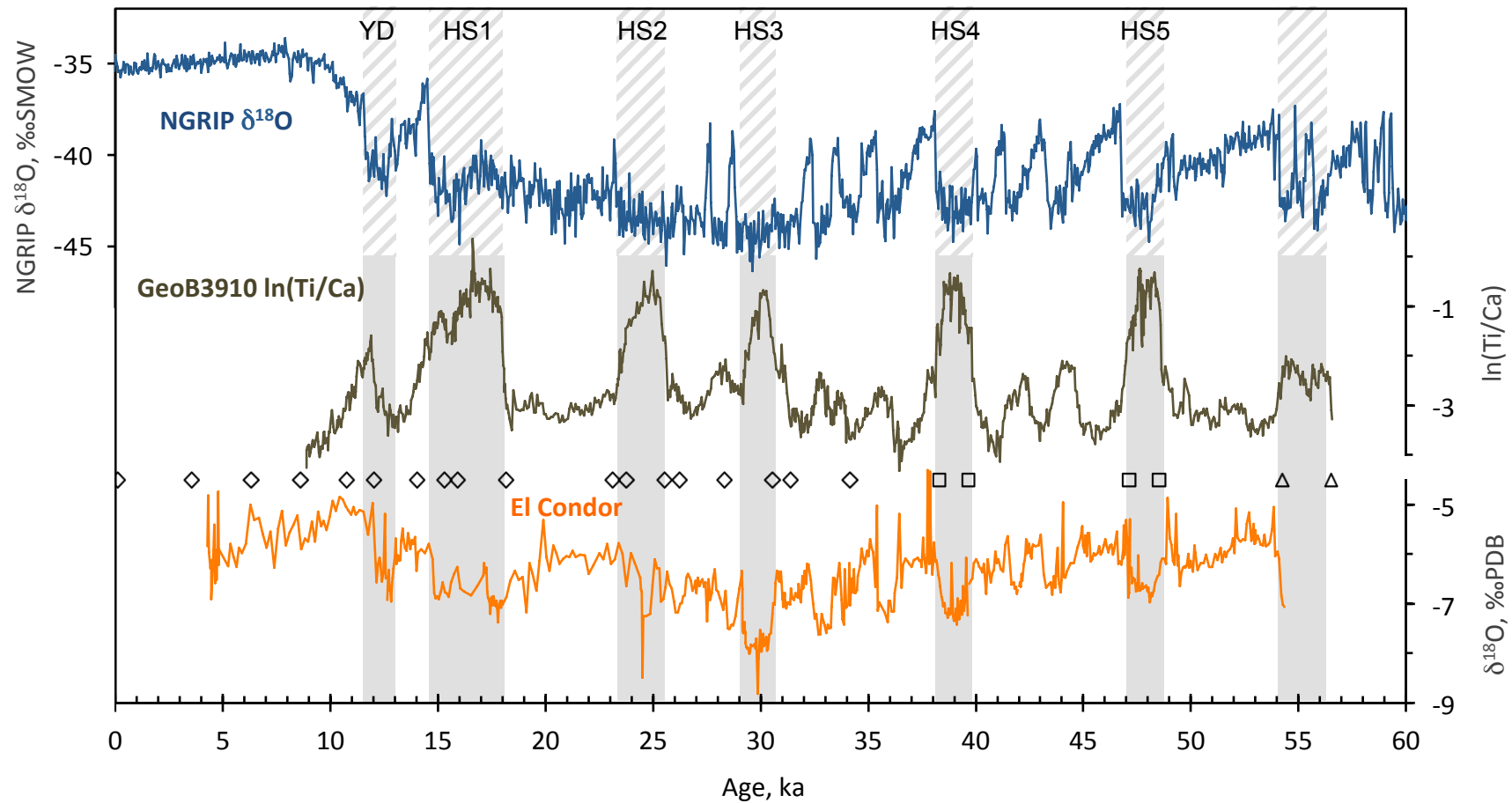
Fig. S3. Example of Brasilian margin core dated by combining ¹⁴C ages and alignment of its Ti/Ca record to El Condor cave δ¹⁸O record.
Upper panel: NGRIP ice δ¹⁸O record on the GICC05 age scale[58]. **Middle panel:** ln(Ti/Ca) record of core GeoB3910[152], diamonds, squares and triangles underneath indicate calibrated ¹⁴C ages, alignment pointers to El Condor and NGRIP δ¹⁸O, respectively. **Bottom panel:** El Condor cave δ¹⁸O[25]. Grey bands highlight the rainfall increases recognizable in both core GeoB3910 and El Condor cave records; hatched bands highlight the Younger Dryas and Heinrich stadials 1-4 chronozones.