

Supporting Information for ”Distinct ocean responses to Greenland’s liquid runoff and iceberg melt”

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1. Figures S1 to S7

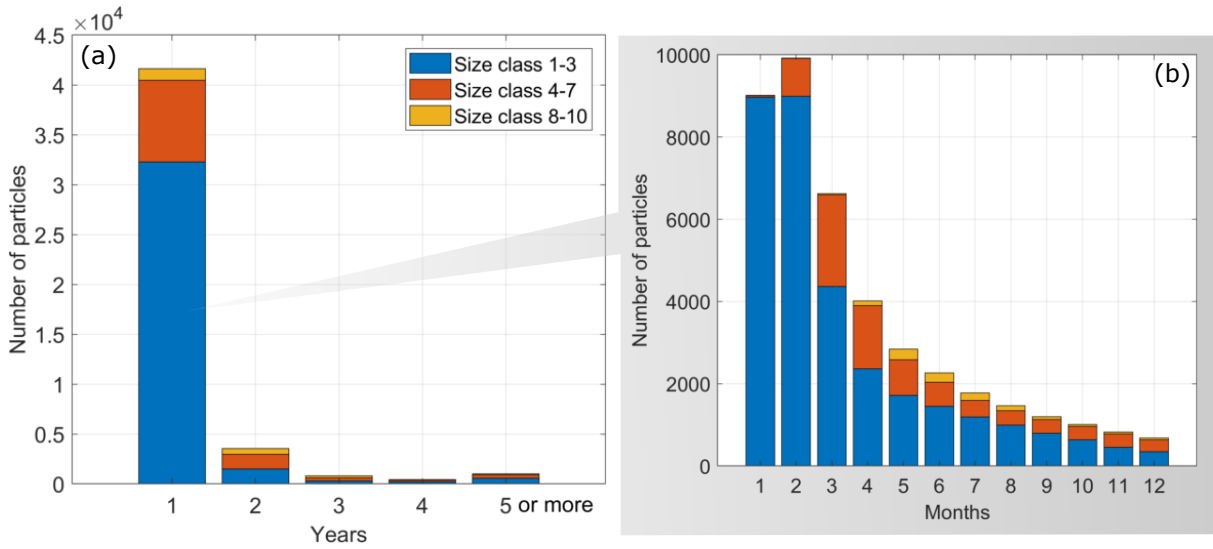


Figure S1. Iceberg lifetime (according to their initial size class) in ICB (a) divided by years and (b) months (for particles that disintegrated within the first year). For details on iceberg sizes according to their class, please consult Table 1 in Martin and Adcroft (2010).

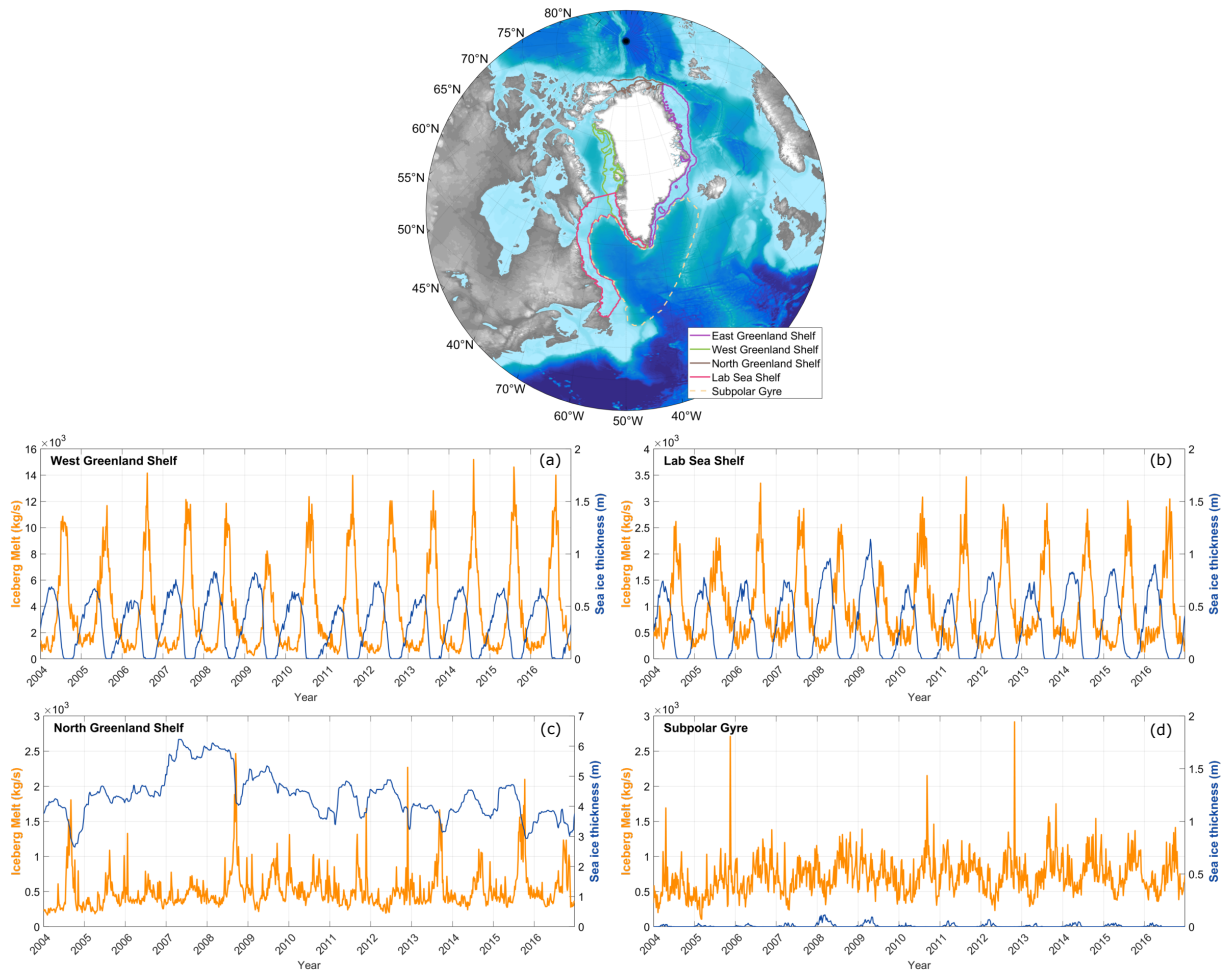


Figure S2. Iceberg melt rates (orange) and sea ice thickness (blue) for the (a) west Greenland shelf, (b) Labrador Sea shelf, (c) north Greenland shelf, and (d) subpolar gyre. The masks corresponding to those areas are indicated in the map on the top.

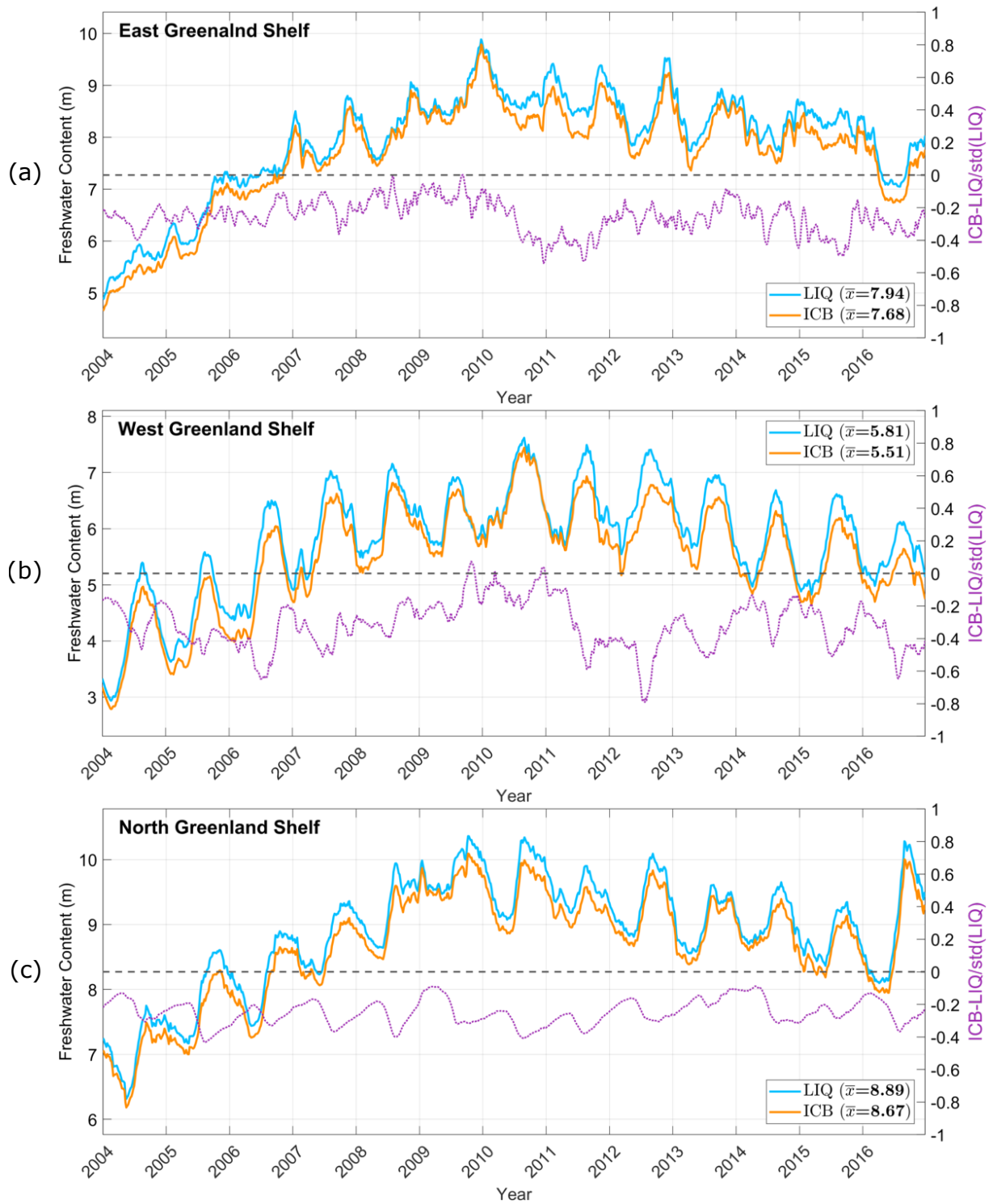


Figure S3. Freshwater content on the (a) east, (b) west, and (c) north Greenland shelf. The masks corresponding to those areas are indicated in the map on the top of Figure S1.

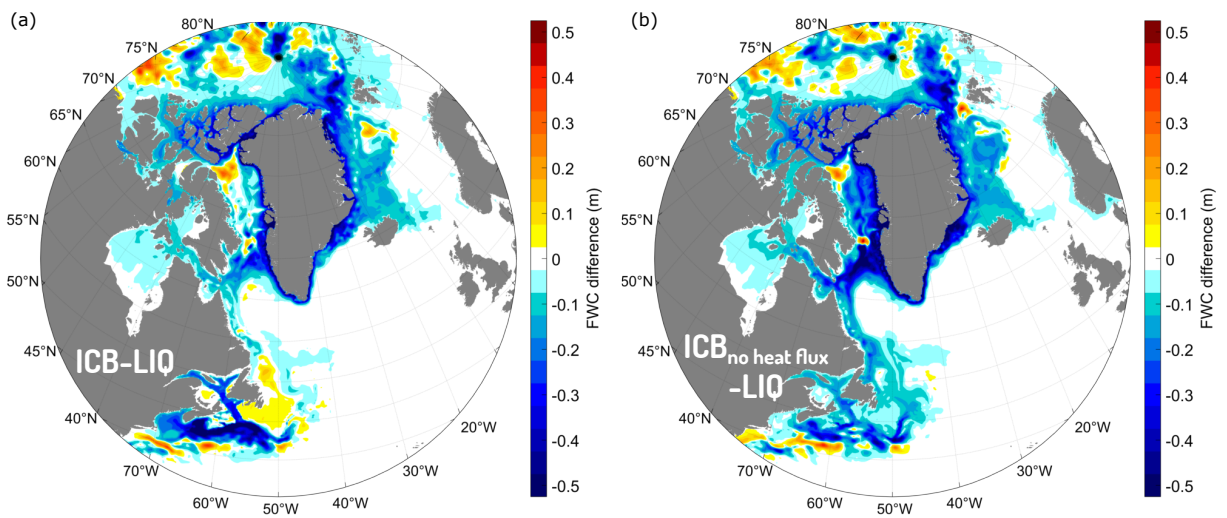


Figure S4. Map showing the averaged (2004-2016) freshwater content differences between ICB and LIQ (ICB-LIQ).

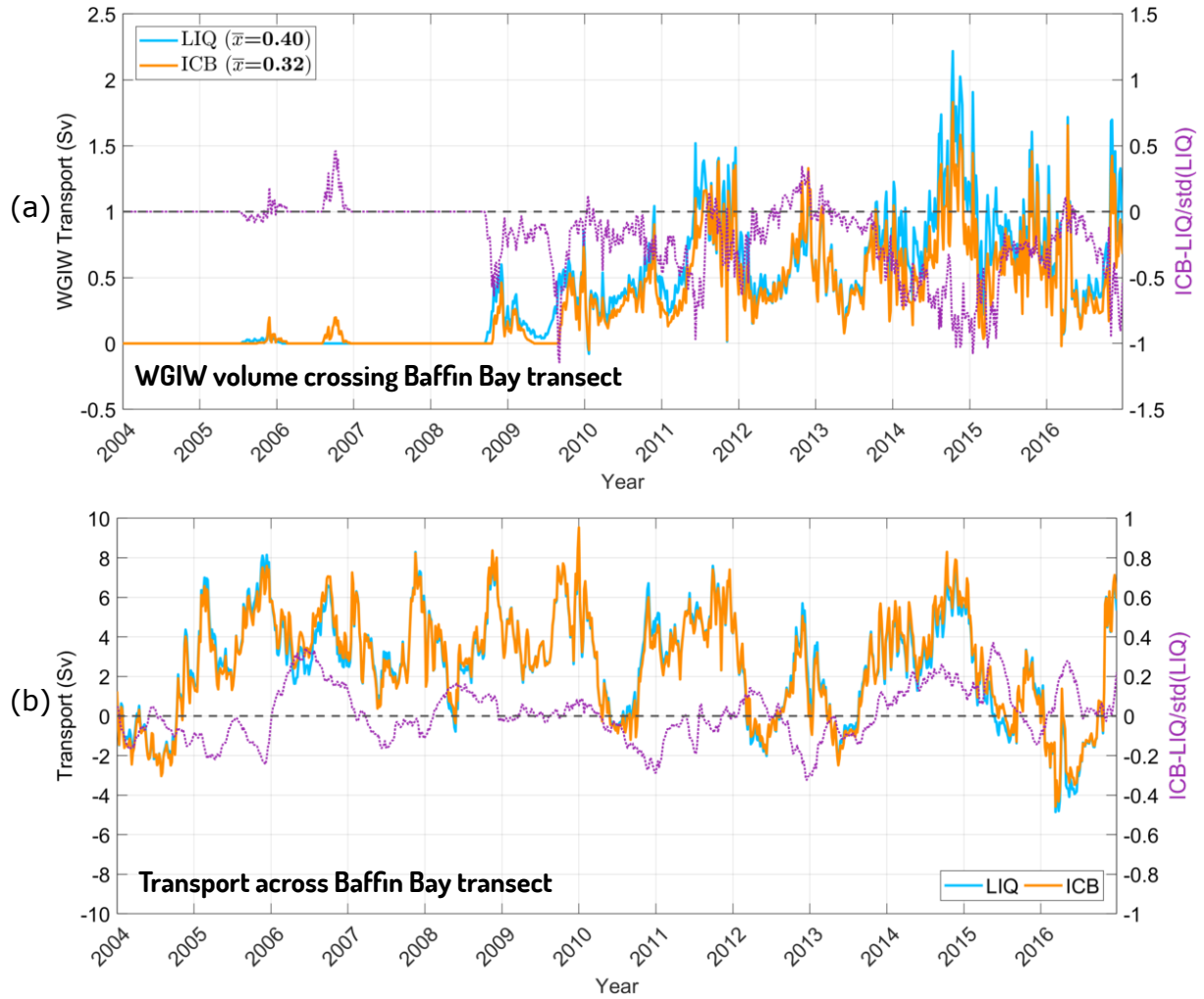


Figure S5. (a) WGIW volume transport and (b) full water column volume transport across transect in Baffin Bay (indicated in Figure 2) for ICB (orange line) and LIQ (blue line). The purple dotted line shows the ICB-LIQ differences with respect to LIQ's variability.

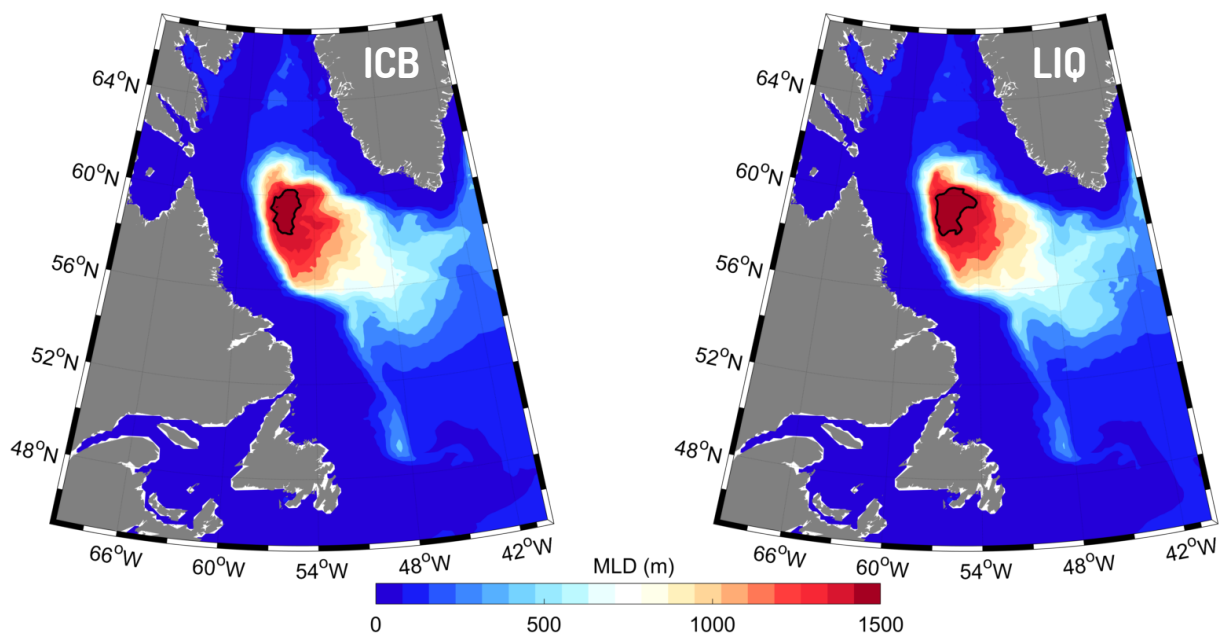


Figure S6. Average (2004-2016) March mixed layer depth in ICB (left) and LIQ (right). The black contour indicates the 1500 m isopleth so the deepest MLD area can be compared between simulations.

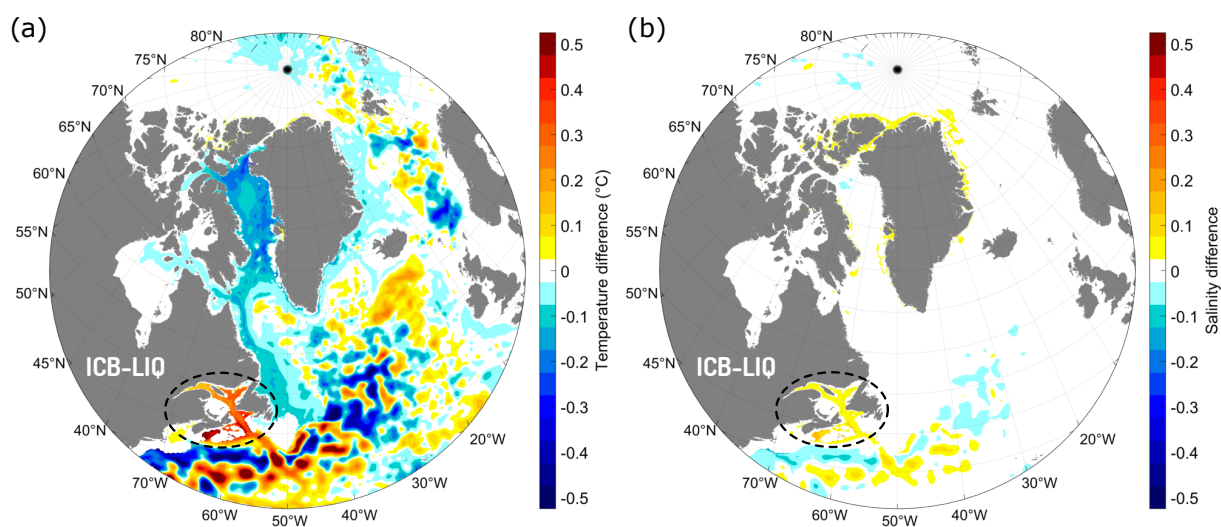


Figure S7. Map showing the averaged (2004-2016) (a) temperature and (b) salinity differences between ICB and LIQ at 100-500 m. The dashed contour indicates the Gulf of Saint Lawrence region.