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Water masses in the Atlantic Ocean: characteristics and distributions

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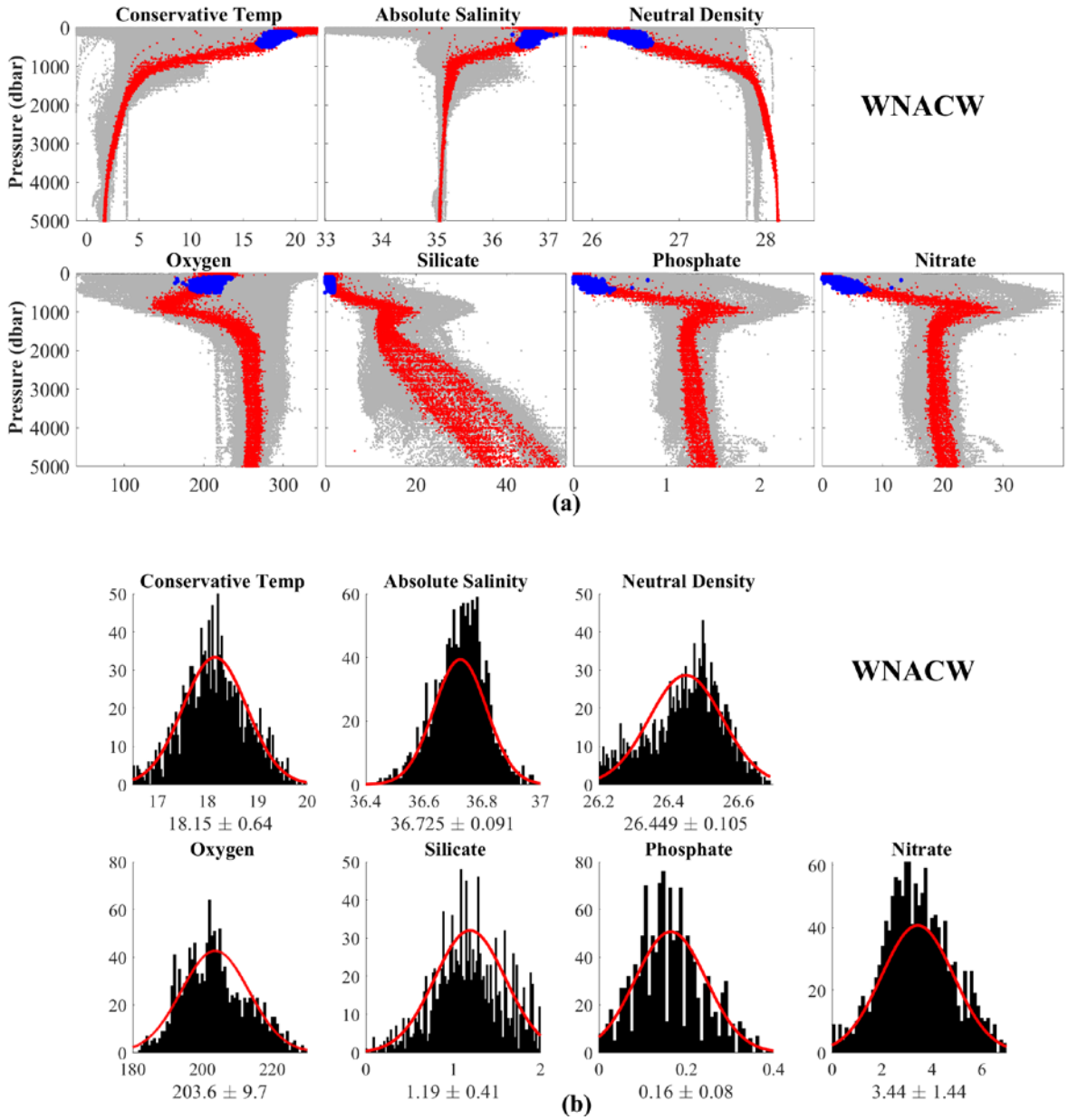

Figure S1: Definition of Western North Atlantic Central Water (WNACW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

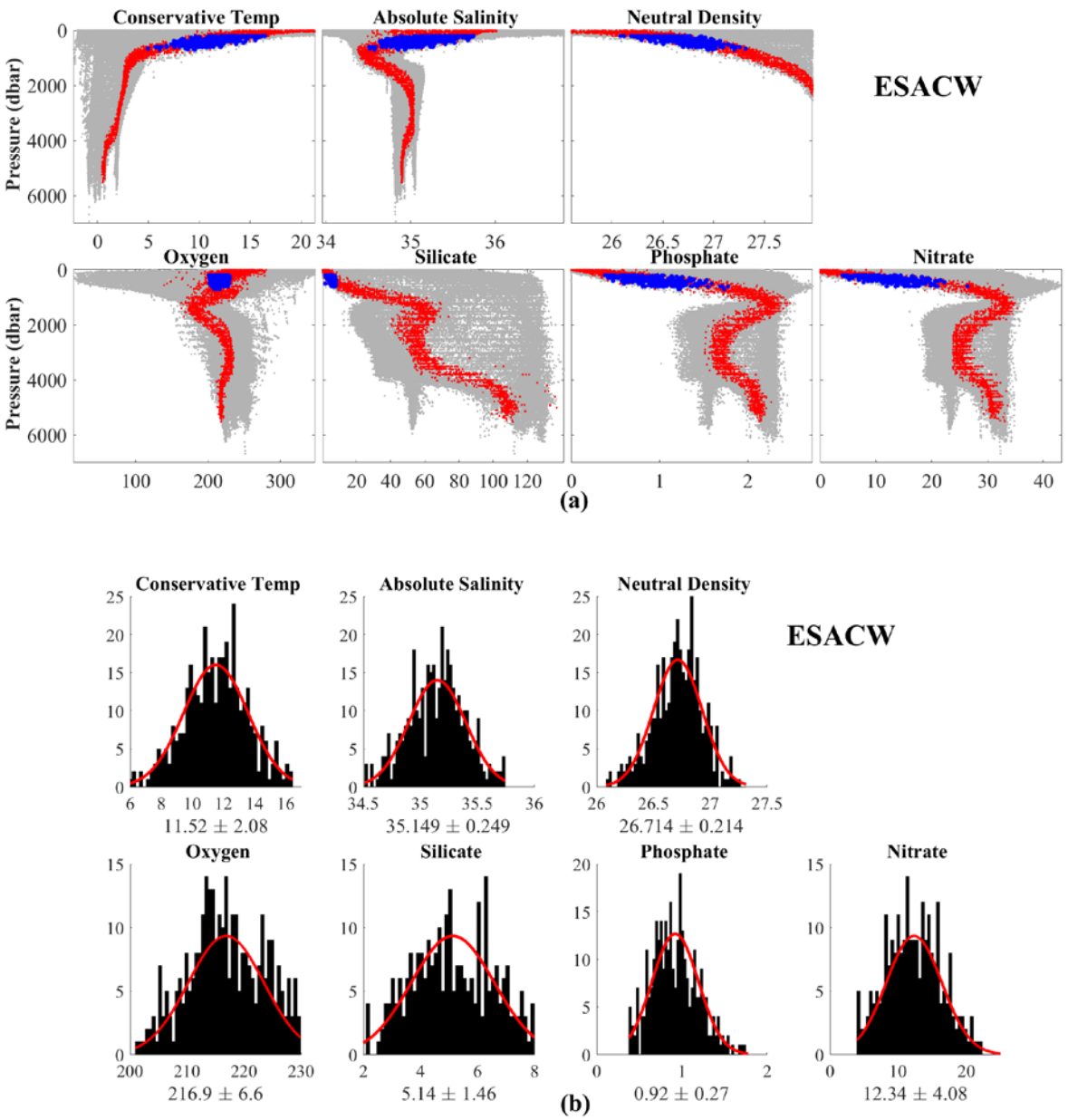

Figure S2: Definition of Eastern South Atlantic Central Water (ESACW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

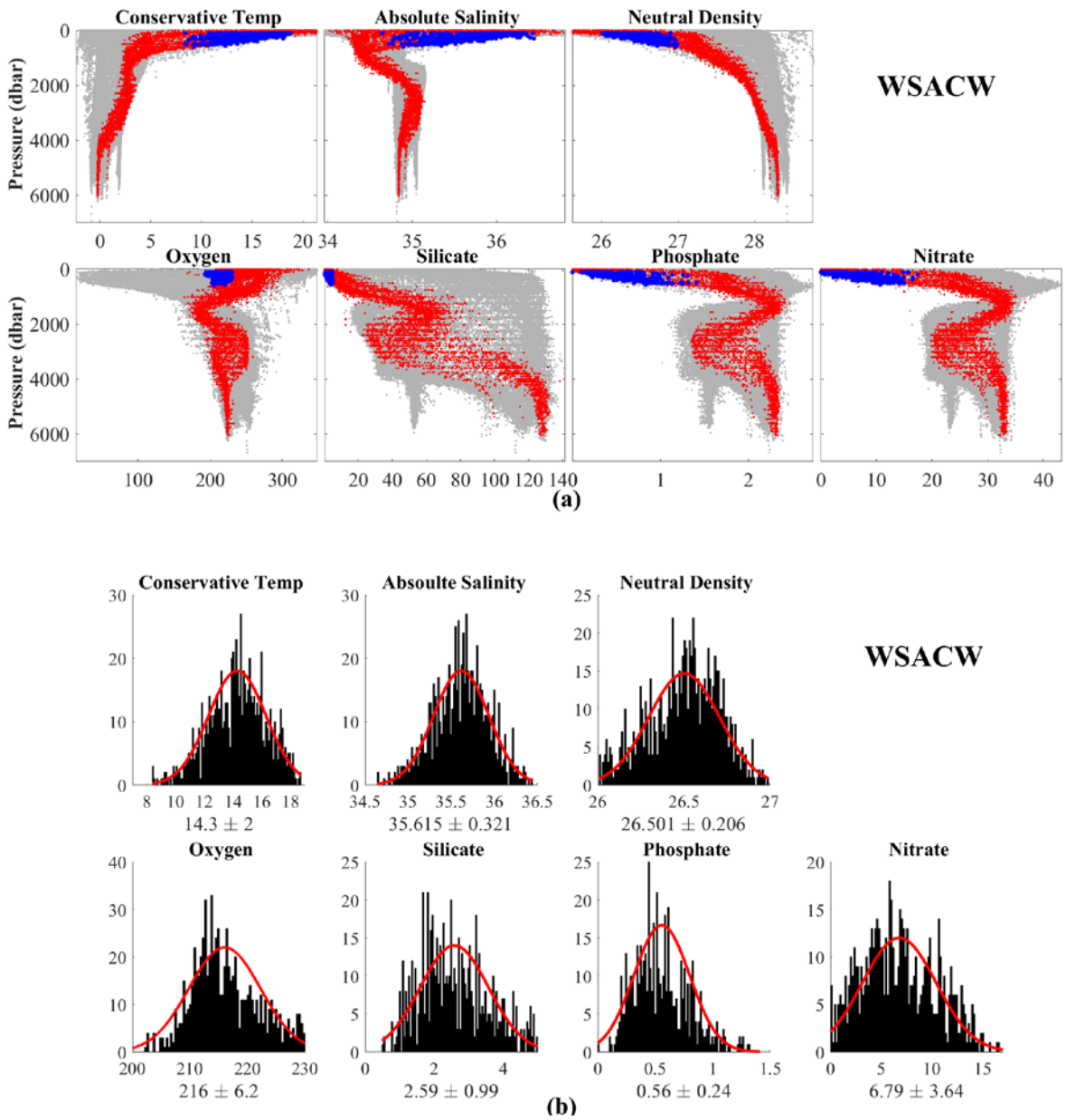

Figure S3: Definition of Western South Atlantic Central Water (WSACW): Panel a**)** the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

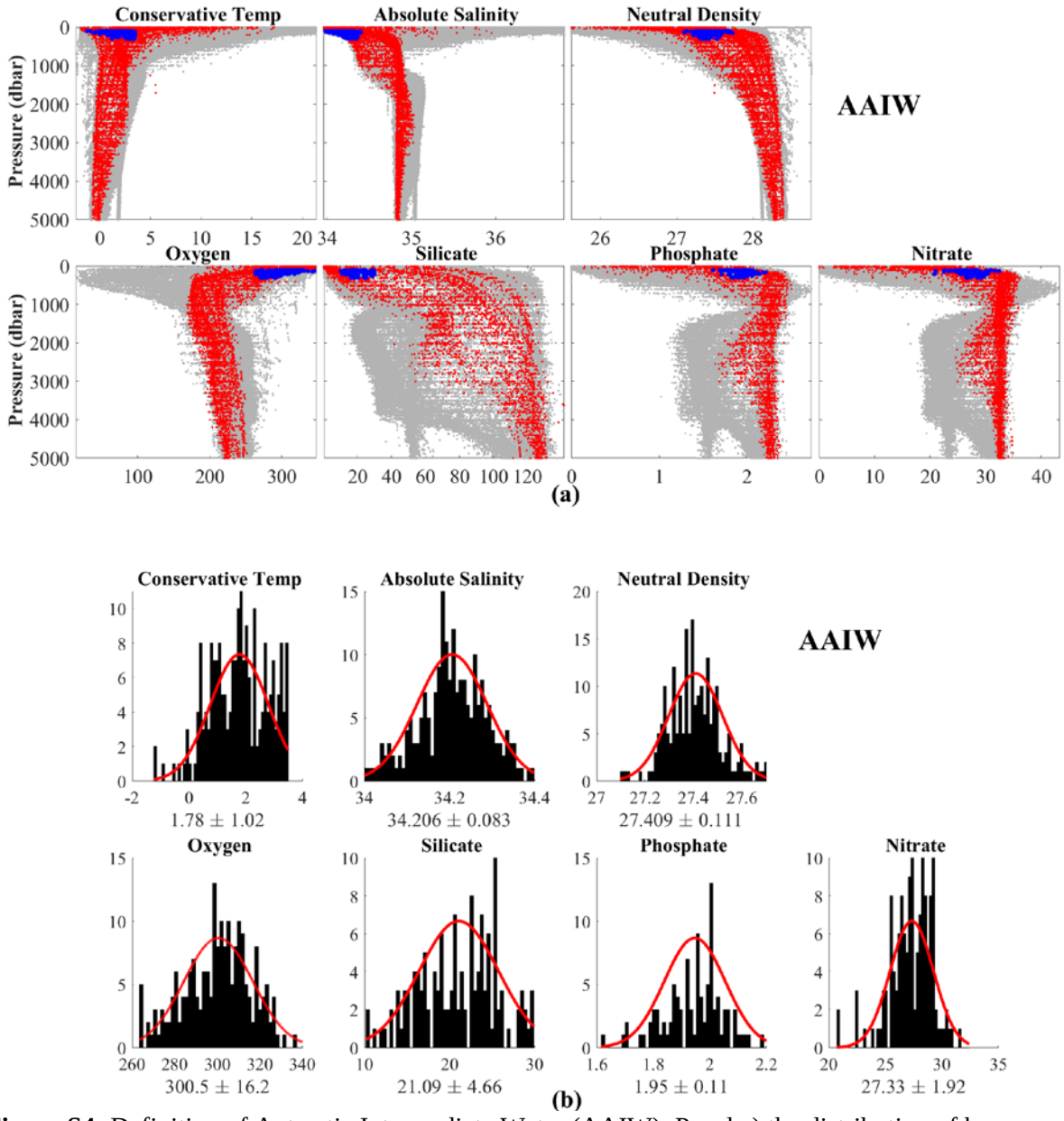

Figure S4: Definition of Antarctic Intermediate Water (AAIW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

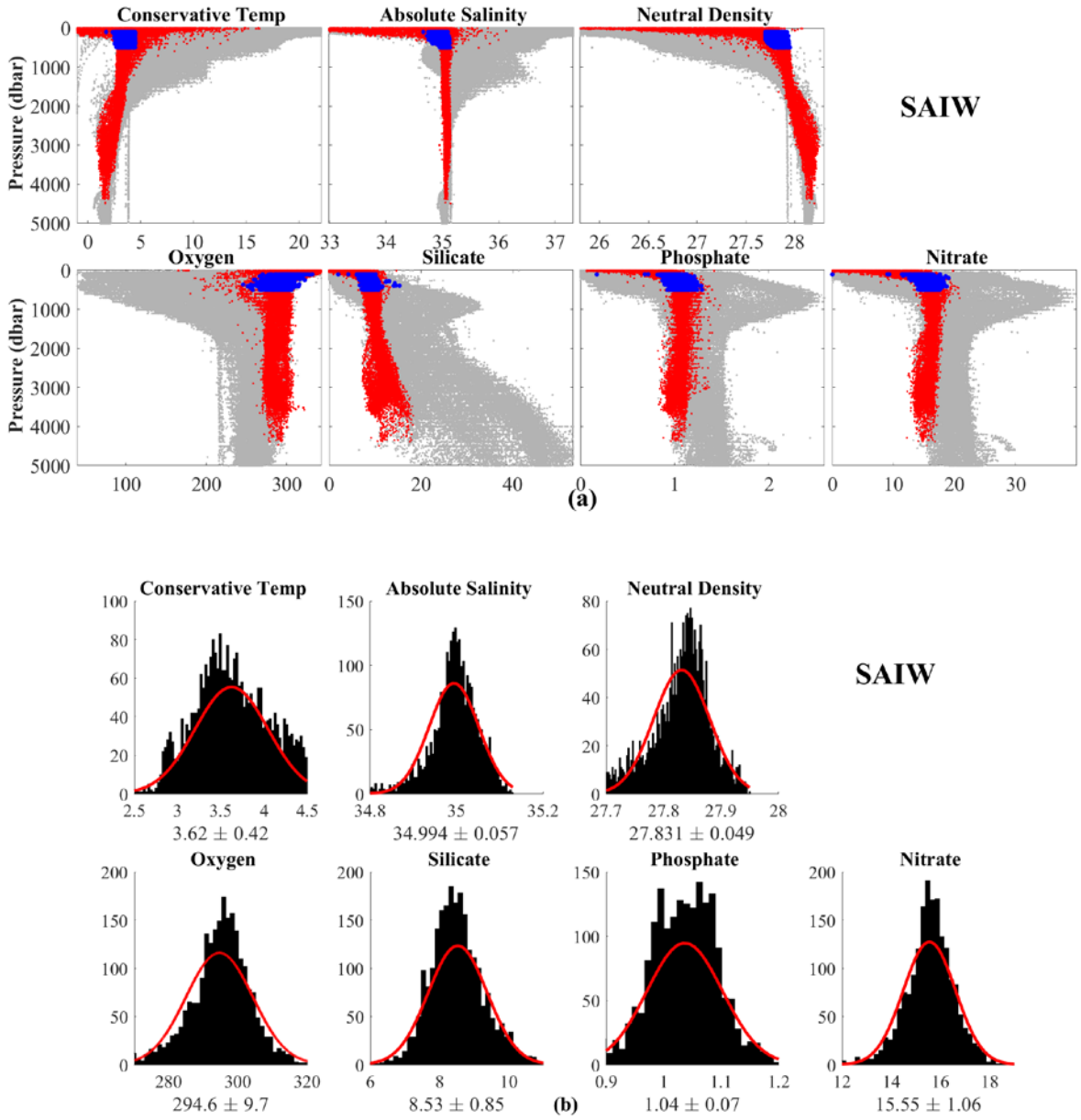

Figure S5: Definition of Subarctic Intermediate Water (SAIW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data

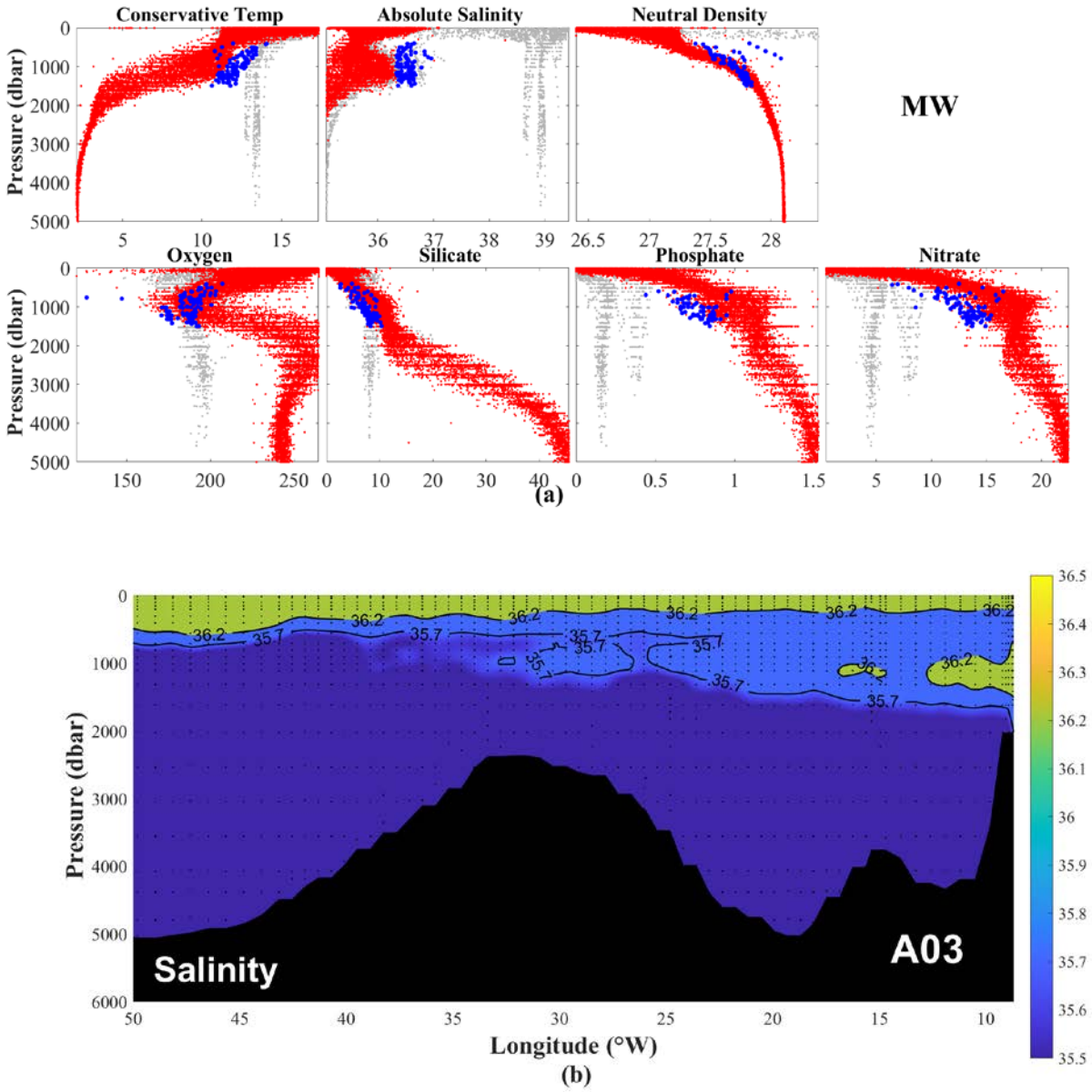

Figure S6: Definition of Mediterranean Water (MW): Panel a) the distribution of key properties vs. pressure; Panel b) Distribution of absolute salinity (SA) along the A03 cruise that shows the feature of MW.

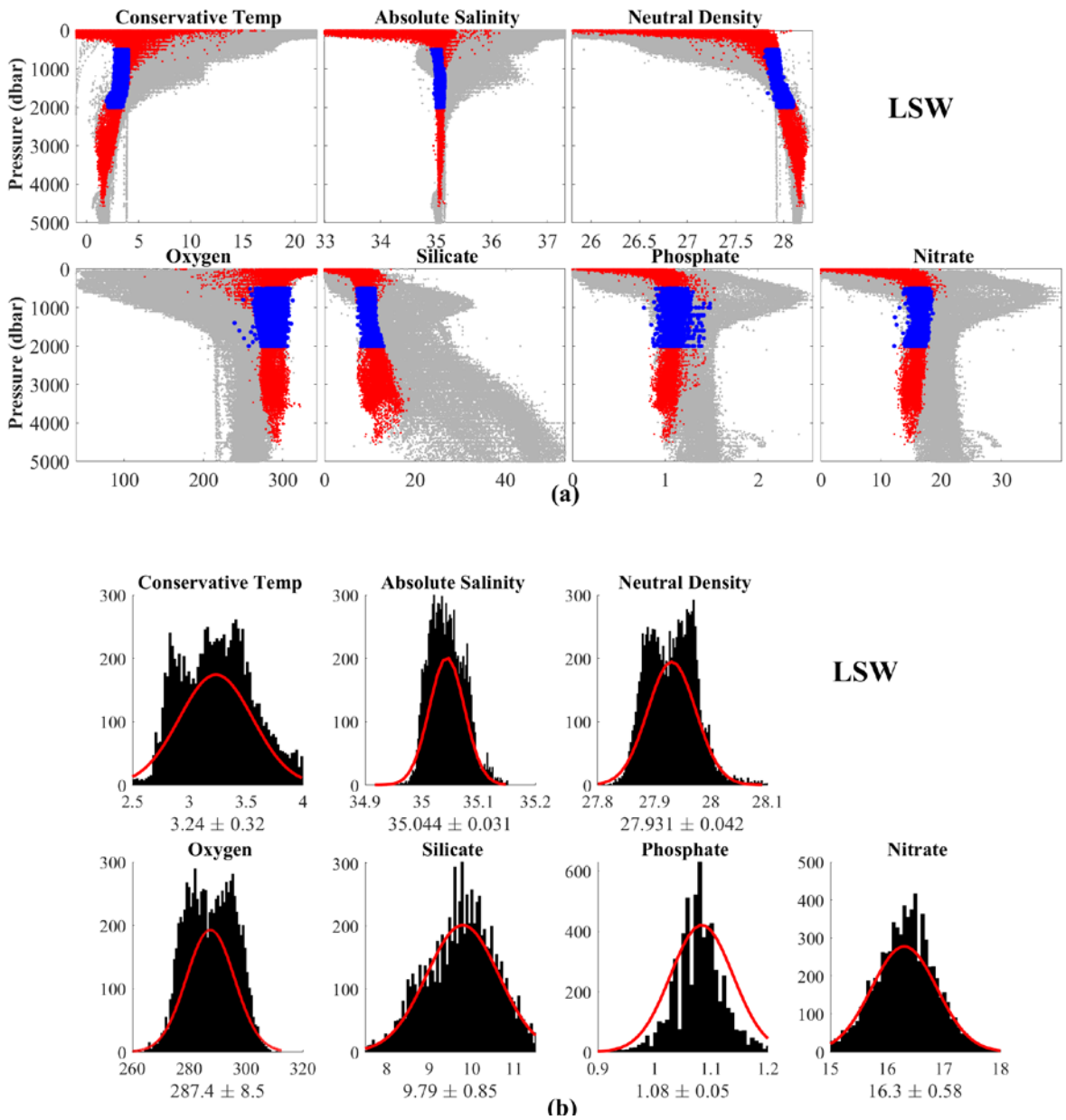

Figure S7: Definition of Labrador Sea Water (LSW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

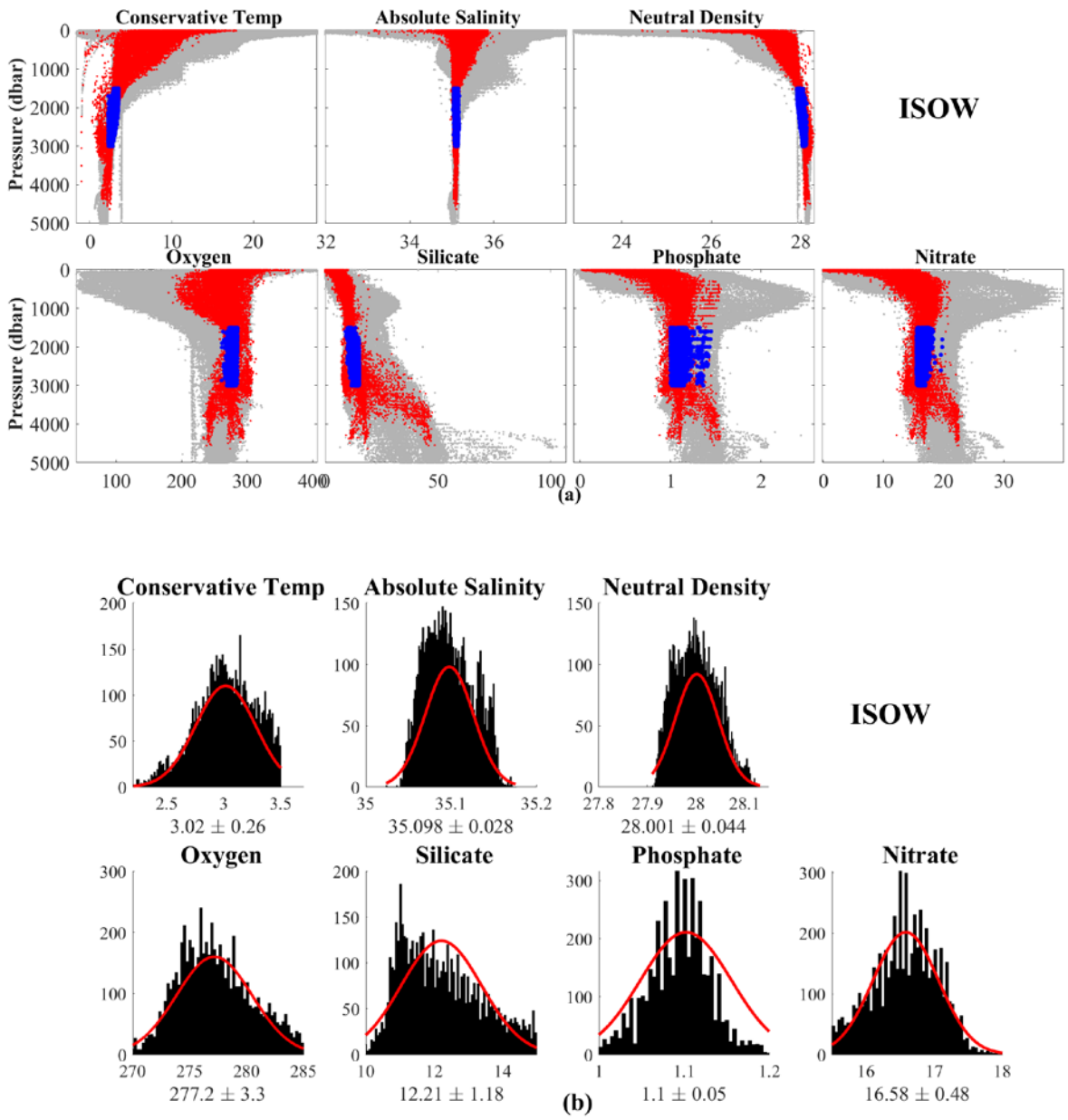

Figure S8: Definition of Iceland Scotland Overflow Water (ISOW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

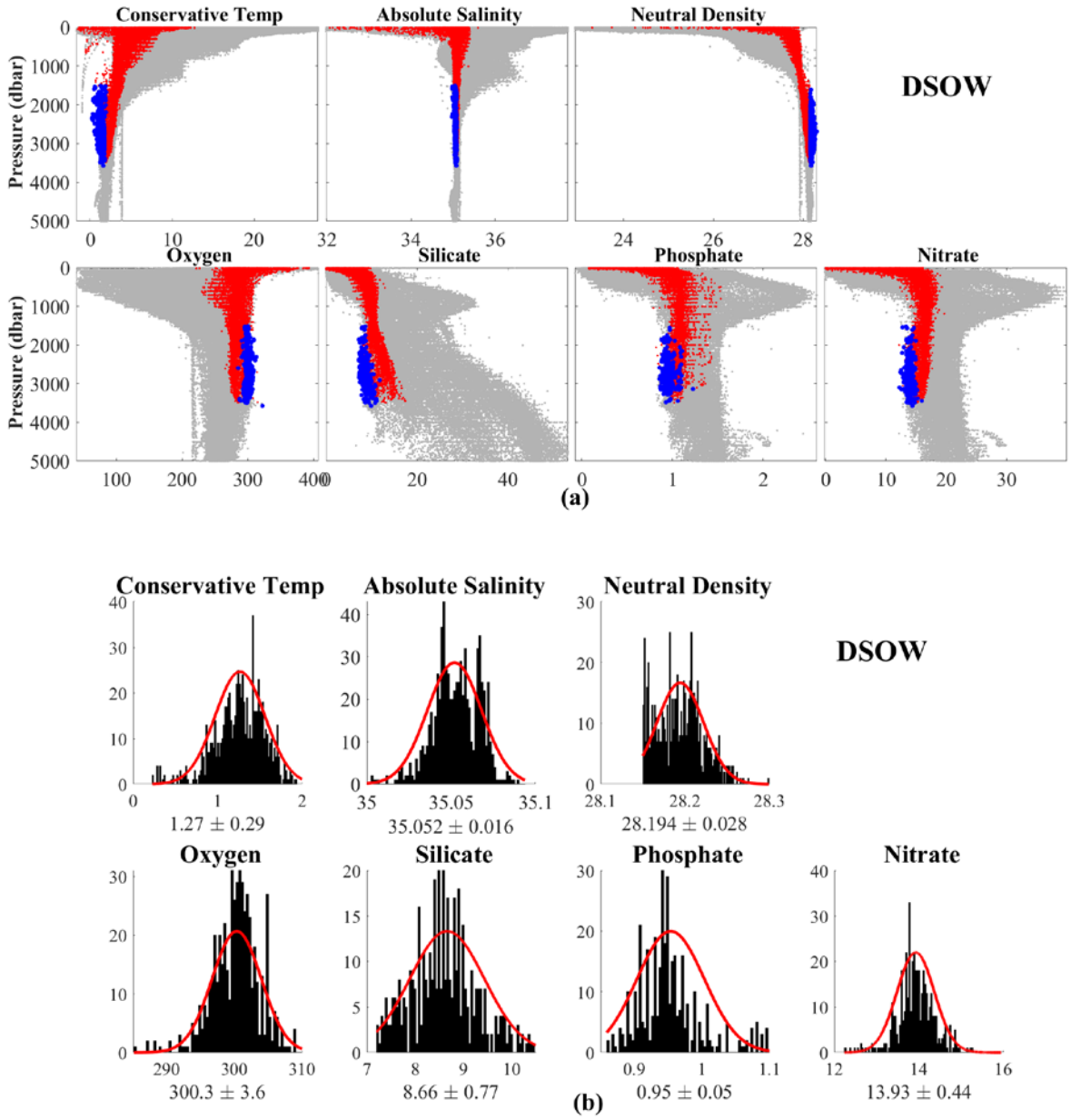

Figure S9: Definition of Denmark Strait Overflow Water (DSOW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

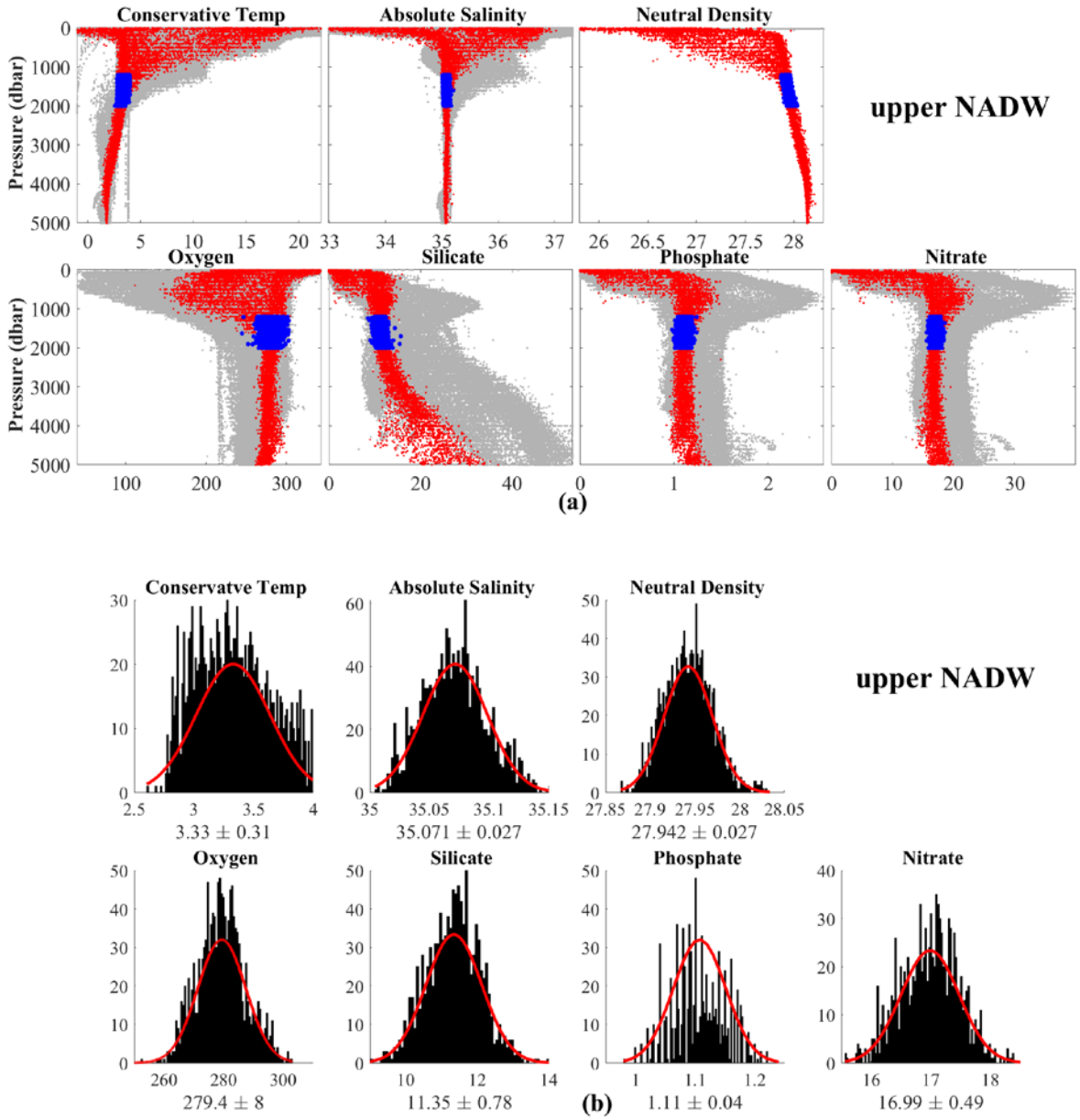

Figure S10: Definition of upper North Atlantic Deep Water (uNADW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

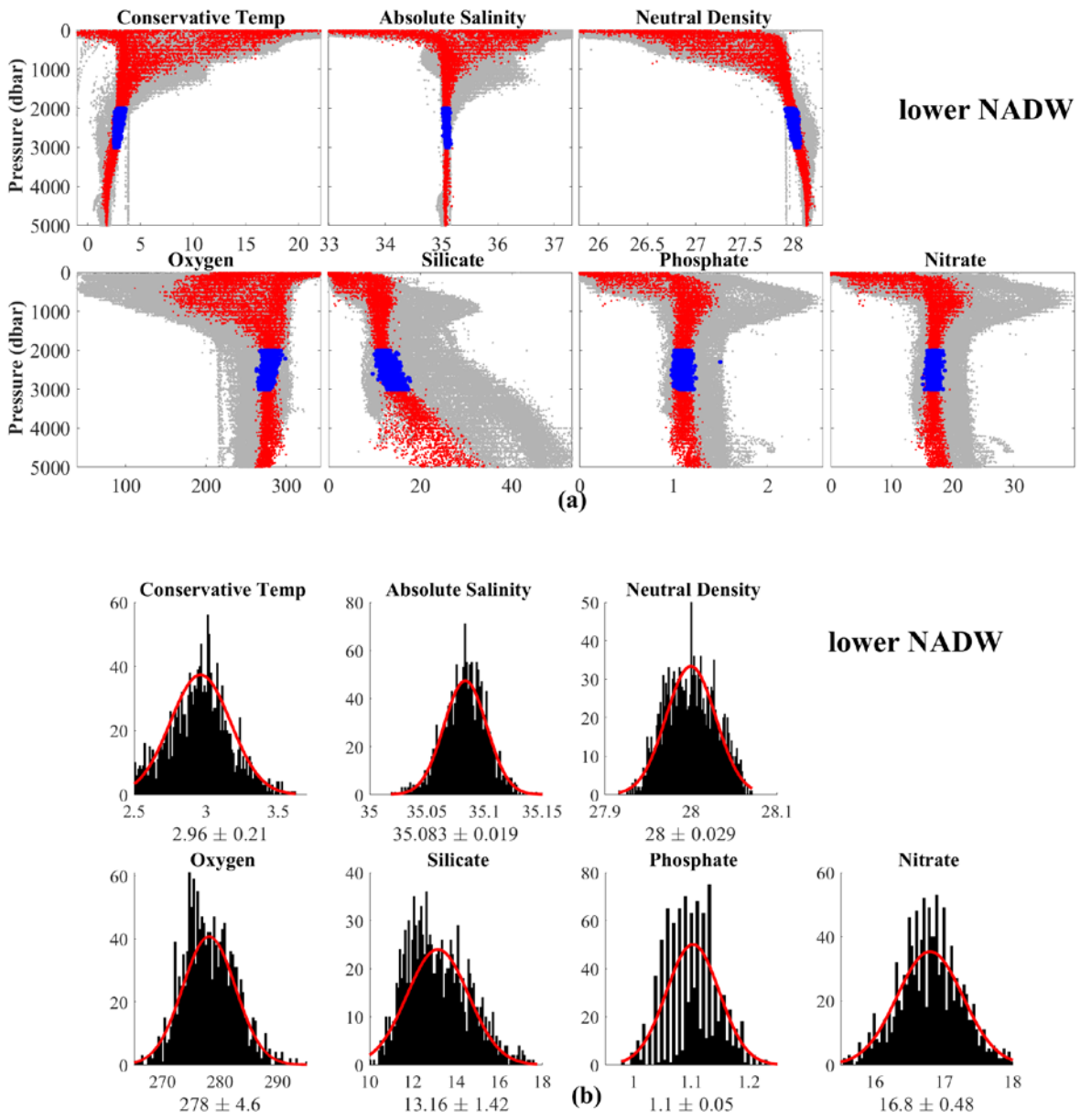

Figure S11: Definition of lower North Atlantic deep Water (lNADW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

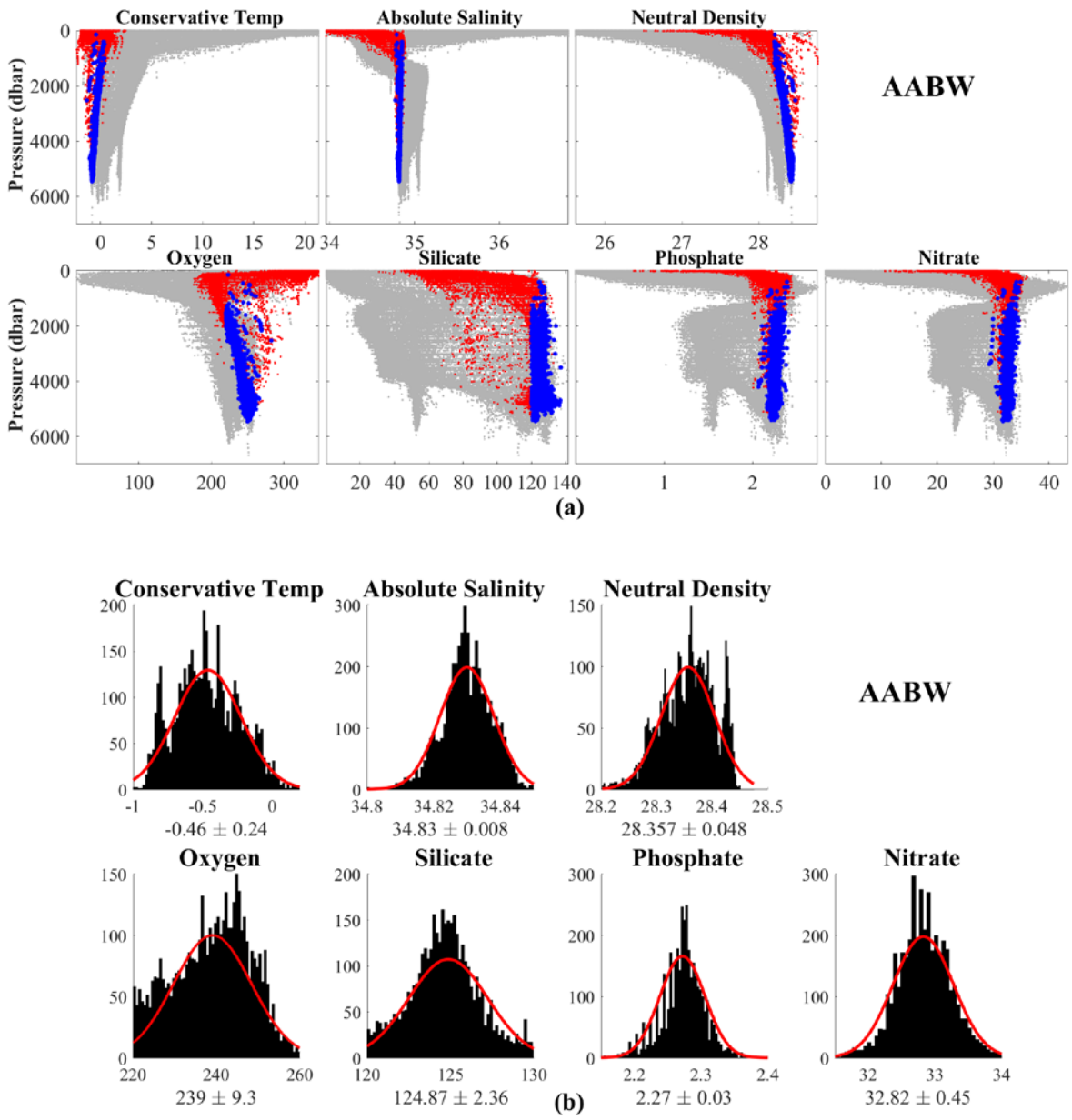

Figure S12: Definition of Antarctic Bottom Water (AABW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

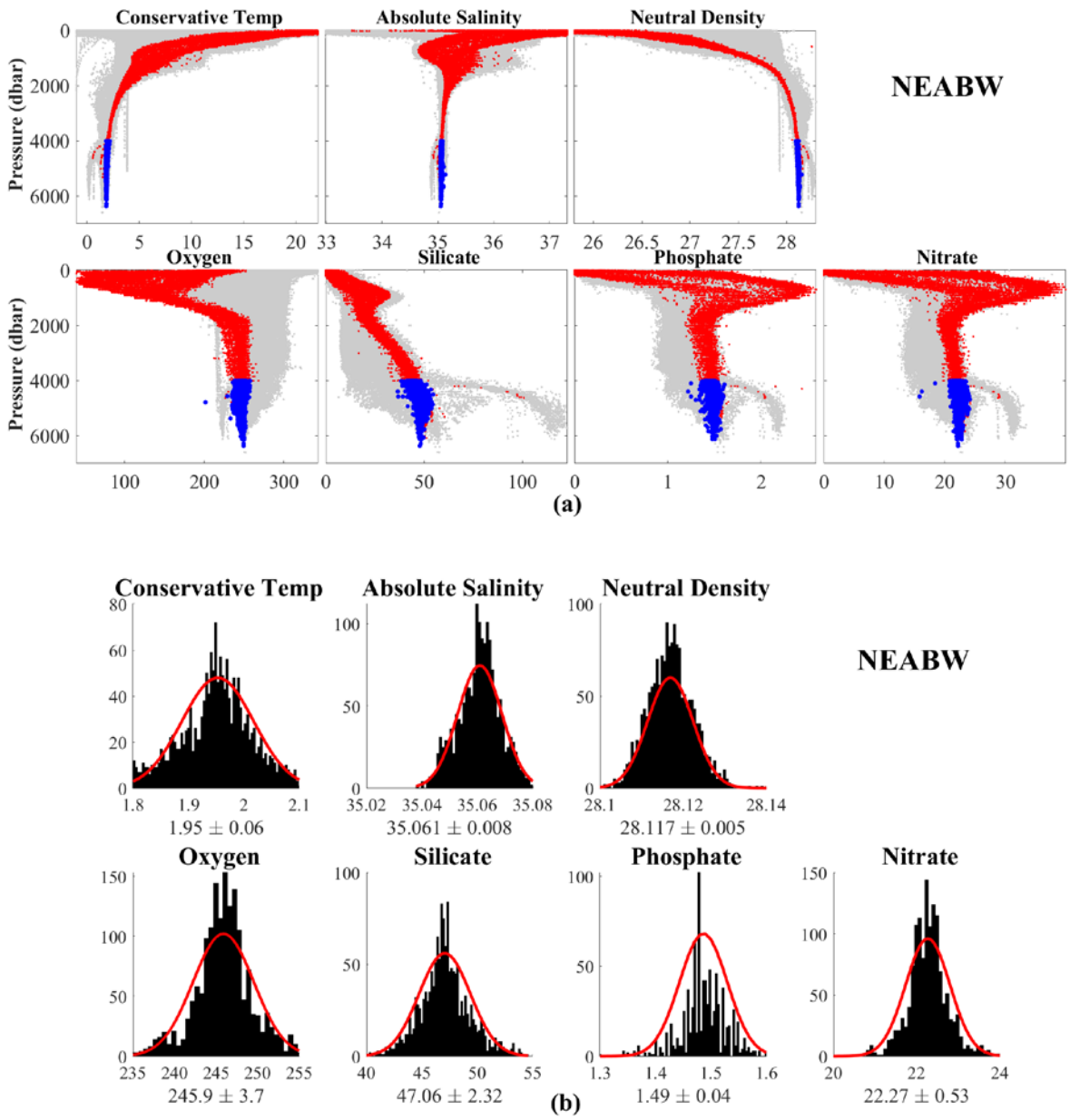

Figure S13: Definition of Northeast Atlantic Bottom Water (NEABW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

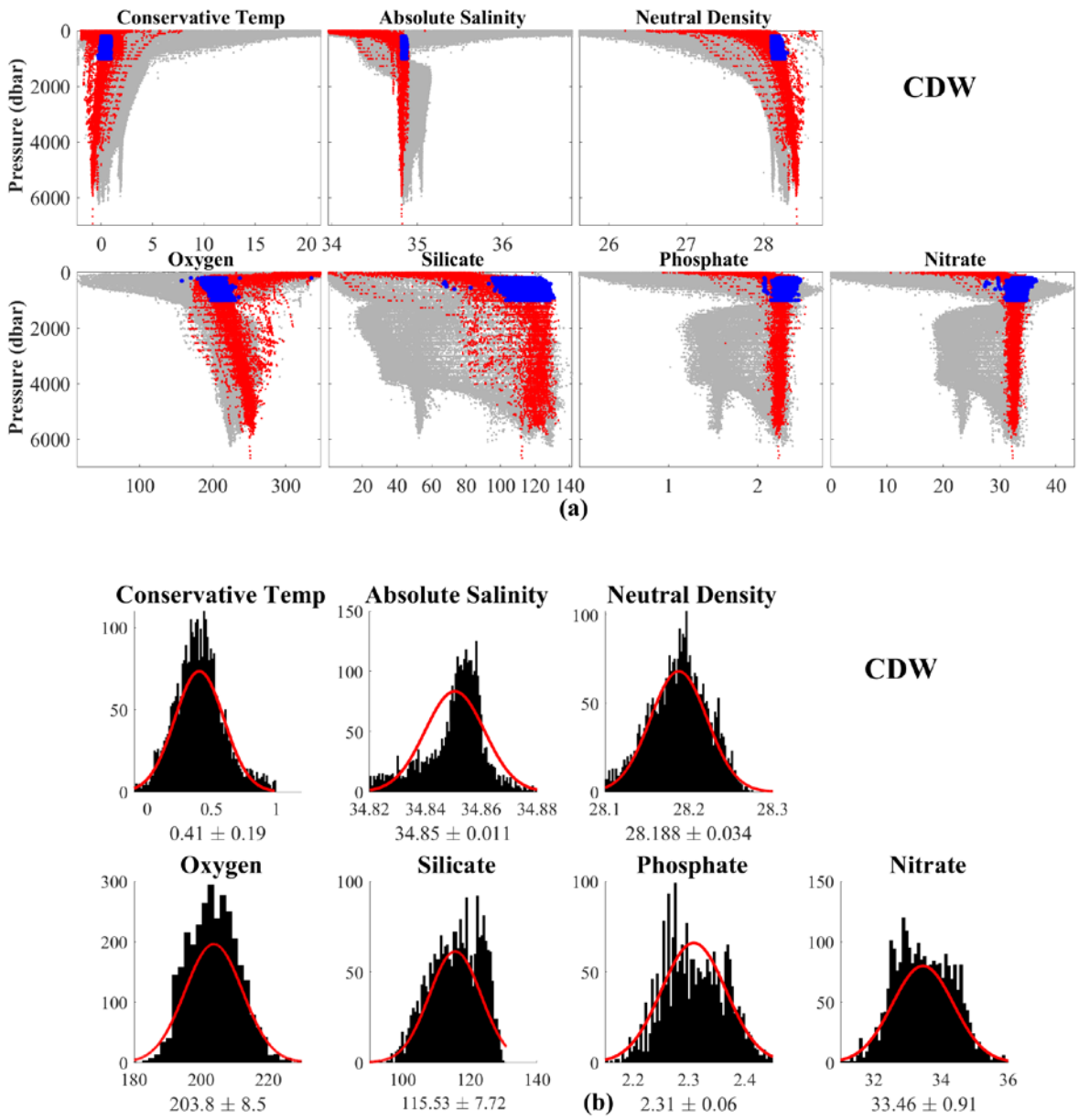

Figure S14: Definition of Circumpolar Deep Water (CDW): Panel a) the distribution of key properties vs. pressure, **b)** bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.

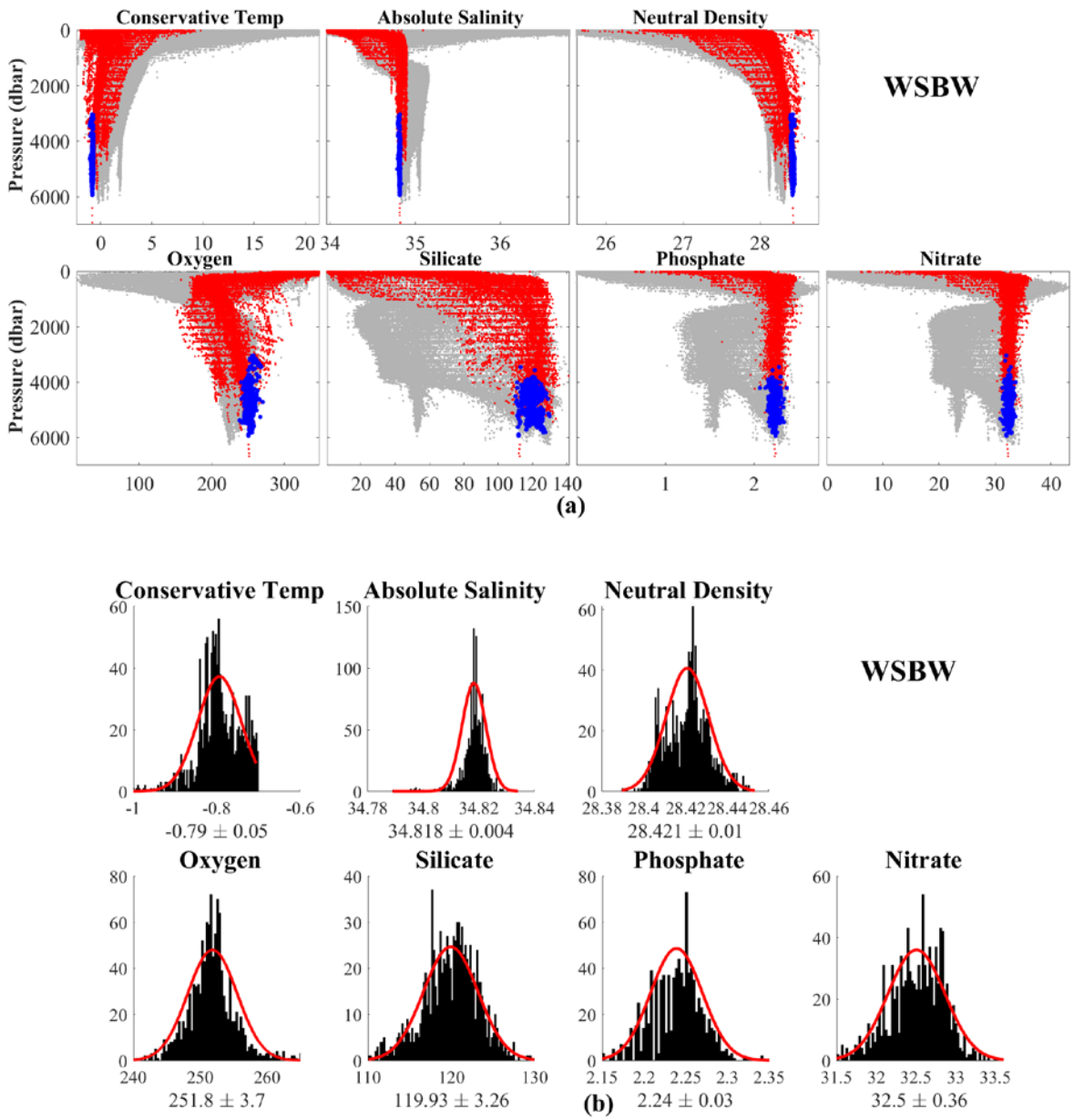

Figure S15: Definition of Weddell Sea Bottom Water (WSBW): Panel a) the distribution of key properties vs. pressure; Panel b) bar plots of the data distribution of samples used to define the SWTs. Conservative Temperature (°C), Absolute Salinity (g kg^{-1}), Neutral Density (kg m^{-3}), Oxygen and Nutrients (µmol kg^{-1}). The red Gaussian fit shows mean value and standard deviation of selected data.