Dear Dr. Kohfeld,

Thank you very much for accepting our manuscript for submission. We appreciate you catching the typo related to Figure 3 and your other helpful suggestions that have improved the clarity of our manuscript. Below we state how we addressed each comment in blue.

LN 175-176: for clarity, please change "extending past" to "extending equatorward of" to indicate direction of change in sea ice extent
This has been changed.

LN 247-249: the definitions of proxy/model lines appear to be reversed in the text (proxy should be solid black line; model dotted) relative to figure 3.
Thank you for pointing this out, you are correct. It has now been fixed.

LN 348-349: For clarity, can you please specify that the relationships are with SSI, rather than the more general use of "sea-ice extent"?
To make the sentences clearer, we have replaced sea-ice extent with SSI extent, shown below:

Lines 345-358: “There is however a weak relationship between SSI extent and AMOC depth (Fig. S2, R2=0.17), with a shallower AMOC generally associated with a larger SSI extent. A larger SSI extent, and thus increased sea-ice formation, could impact the AABW properties and therefore ocean stratification (Marzocchi and Jansen, 2017), as evident from Fig. 5.”

LN 358: To make your sentence parallel, can you please also provide the approximate, seasonal range of the sea-ice extent in degrees latitude for the modern day as well?
Estimated from Fig. 1 of Cavalieri and Parkinson (2012), we have now included an approximate present-day sea-ice edge seasonality ranging from ~15˚ in the Atlantic sector and less than 5˚ in the Indian sector. This sentence is shown below:

Lines 355-356: “In comparison, the present day seasonal change in sea-ice edge ranges from ~15˚ in the Atlantic sector to less than 5˚ in the Indian sector (Cavalieri and Parkinson, 2012).”