

Interactive comment on “Temporal variability in foraminiferal morphology and geochemistry at the West Antarctic Peninsula: a sediment trap study” by Anna Mikis et al.

Anna Mikis et al.

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We thank the reviewer for the positive comments, and excellent suggestions for how to improve the manuscript. We have responded to the points raised, highlighted in bold and italics below.

In the following I address a few point of attention to be changed:

p.3, l.14: delete bracket after “site”

Done

p.6,l.11-16: only mention the conversion from VSMOW to VPDB as you show all data
C1

against the VPDB scale. In addition to the reference of Hut, 1987, which is difficult to get, use Coplen, 1988, Chemical Geology, 71, p293-297, which explains the normalization of isotope data.

Done, and reference added. Please note that we have also corrected the text on page 6, as commented on by H. Spero.

p.9, l.1: add data in between “d18Oeq” and “at”

We have changed this sentence to: “Assuming no vital effect, the predicted $\delta^{18}\text{O}_{\text{eq}}$ values at 50-100 m water depth show similar patterns to the measured $\delta^{18}\text{O}_{\text{np}}$ in spring to early autumn, but diverges in late autumn and into winter”.

p.13, l.19: the paper would be improved if satellite images could be given to document this extreme flux from 2010, showing the sea-ice retreat and/or increase in primary production

Visuals of the anomalous sea-ice conditions are found in Figure 9 of Meredith et al., 2017. This is now included in the text, to direct the reader. We have reworded this section for clarity, and added in a supplementary figure to illustrate (Figure S15): “Early ice retreat following average sea-ice conditions during the winter of 2010 (Figure S15, and see Figure 9 in Meredith et al., 2017), resulted in optimal conditions for very high flux of large, isotopically high, Nps specimens in the sediment trap region in the austral spring-summer season of 2010-2011.”

p.21,fig.4: enlarge the font of the vertical axis numbers in the upper part of the figure

Done

p.22, figure caption: species name in italics, same for fig.6 caption and maybe others

Done

p.27, on the axis in the two lowermost figures: either Departure or departure

Done

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C3

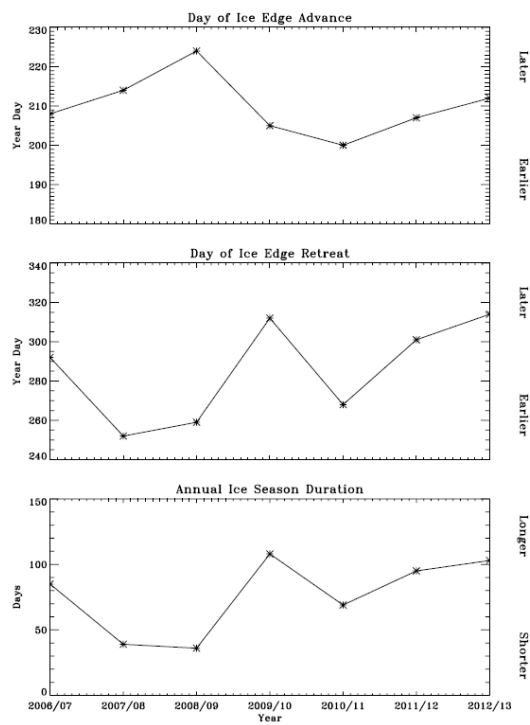


Fig. 1. Figure S15

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