

Interactive comment on “Export of calcium carbonate corrosive waters from the East Siberian Sea” by Leif G. Anderson et al.

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Leif and co-authors.

It would be very helpful for the readers if earlier work by Leif and Igor (e.g., Anderson et al., 2010; Semiletov et al., 2004; 2007) were included as these previous studies illustrate the emplacement of high pCO₂/low pH waters in the East Siberian Sea (and by inference low calcium carbonate mineral saturation states). I think these earlier works should be included as context for the important ESS shelf-basin sections reported and discussed in this paper.

I agree with the authors about the importance of finding the export of highly corrosive waters from the East Siberian Sea shelf into thermocline waters of the Makarov and Canada basins. For the interest of the authors, there is also export

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of high/pCO₂/low pH/low saturation state water from the East Siberian Sea shelf through Long Strait (with the Siberian Sea Current) into the Chukchi Sea, which in turn will contribute to preconditioning of the Chukchi Sea and subsequent far-field effects. This was from the RUSALCA program and although I hesitate to self-cite, this finding is shown in the following paper: Bates, N.R., 2015. Assessing ocean acidification variability in the Pacific–Arctic Region (PAR) as part of the Russian–American Long–term Census of the Arctic (RUSALCA). *Oceanography*, 28(3), 36–45, <http://dx.doi.org/10.5670/oceanog.2015.56>.

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