

Interactive comment on “From sea ice to seals: A moored marine ecosystem observatory in the Arctic” by Claudine Hauri et al.

Anonymous Referee #2

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The authors present a blueprint for a complete observing system, capable of capturing relevant physical, chemical and biological parameters for monitoring and understanding the progress of change in a vulnerable Arctic system.

While the paper doesn't really focus on new scientific results, the manuscript is a useful way to share the challenges and early successes of working with an automated observing platform in a remote region. I hope that papers with a deeper focus on the science are forthcoming.

The description of the physical environment and the well-studied physical seasonality provides a nice background for the description of the observing platform and the presentation of preliminary results.

C1

The freeze up detection method sounds great – was the ‘expendable float’ recovered? Would be a tough sell to leave gear like that behind by design in the Antarctic

Minor Comments:

It would have been nice to see the CO₂ system data that was collected once the SeapHOx sensor was added since these provide the data required to address questions relevant to the progress of acidification which the authors outline as a key research goal.

It was reassuring to see the correspondence in temperature at 34 and 43 meters depth since measurements are restricted to the subsurface – any ideas about seasonality of mixed layer depth? The pCO₂ supersaturations observed in Canadian waters in winter were more shallow than 34 meters (see also Shadwick et al., 2011 L&O).

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2018-82>, 2018.

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