

***Interactive comment on “Using present-day observations to detect when anthropogenic change forces surface ocean carbonate chemistry outside pre-industrial bounds” by Adrienne J. Sutton et al.***

**Anonymous Referee #2**

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The authors observed pH and pCO<sub>2</sub> of surface seawater for several years by using moor system and calculated present-day monthly omega. Then, they discuss biological thresholds of shellfish using pre-industrial calculated omega. Overall, I agree with the authors. I also would like to know time series changes of pH and omega during observation, but this would be another topic. Since the manuscript is well written, only a few minor comments are attached below.

Fig.2-7 I would like you to add pCO<sub>2</sub> data

P4 L1 "Overall uncertainty..." Is it ture ? I think 2 uatm is too small.

C1

P4 L30 small errors?

P11 L8-10 and P12 L4-5: I think these two sentences are inconsistent. Does ship-base observation underestimate or overestimate the variability of omega ?

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