

The revised manuscript from Vriesman et al satisfies all of my prior suggestions, including greater elaboration in the methods section of computational and statistical techniques. They also added descriptive statistics describing the widths of the bands as requested (important for other workers comparing their shells to this study), and a mention in the discussion of the need for greater study of the link between anaerobiosis and dark band formation. Regarding XRD, since that work has been conducted previously in multiple manuscripts, it is understandable that the authors worked from that precedent in their identification of shell layer mineralogy.

For the figure 5B, the authors point to a supplemental figure which does indeed satisfy my prior curiosity about the importance of site. It seems the "middle intertidal" subgroup does have greater variance in gray value even when only one site is included. I would note for future work that if the authors are using ggplot in R, there is a "group\_by" argument that can create bars with different dithered point colors or shapes grouped together, but that is immaterial and the figure is fine as is.

Since all of my suggestions have been responded to and satisfied, I endorse the publication of this article with no further changes requested.

Regards,

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