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Interactive comment on "Relative roles of endolithic algae and carbonate chemistry variability in the skeletal dissolution of crustose coralline algae" *by* C. Reyes-Nivia et al.

Anonymous Referee #1

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Dear Reyes-Nivia et al.,

I found your article very informative and I am glad to see that someone has undertaken this topic of research. It will be a helpful contribution to those of us who work with coralline algae in the context of ocean acidification studies. My questions and suggestions are as follows:

1. In your introduction you mentioned that the CCA could contain dolomite and in your discussion you briefly mention brucite. Since XRD analyses were run, did you find evidence of either of these in your samples to help elucidate cement re-precipitation? Would SEM work perhaps help determine the presence of re-precipitation to support

statements in the discussion?

2. I, like Mr. Wisshak in his short comments, wondered about the contribution of non-photosynthesizing microborers. If no quantification was made of these organisms, perhaps address this in the discussion and what future work could be done to estimate their influence.

3. At the top of page 3006 (line 1-2) you state that the environmental effect of seawater has a minor role in dissolution of skeletons with endolithic algae (referring to the HMC saturation state from the line before this statement). Then on page 3007 (line 1-2) you state that the HMC saturation state of seawater largely mediates dissolution of skeletons under all CO2 treatments. Based on what you show in your results, it might be good to clarify on 3007 which skeletons you are referring to (skeletons with or without photosynthesizing microborers). The difference(s) could be made clearer as you transition between topics.

Again, thank you for your contribution!

Interactive comment on Biogeosciences Discuss., 11, 2993, 2014.