

Will daytime community calcification reflect reef accretion on future, degraded coral reefs?

Coulson A. Lantz^{1,2}, William Leggat², Jessica L. Bergman¹, Alexander Fordyce², Charlotte Page¹, Thomas Mesaglio¹, Tracy D. Ainsworth¹

¹University of New South Wales, School of Biological, Earth and Environmental Sciences, Kensington, 2033 NSW Australia

²University of Newcastle, School of Environmental and Life Sciences, Callaghan 2309 NSW Australia

Email Corresponding Author: C.lantz@unsw.edu.au

Reviewer Response Form

Reviewer Comment #1

The authors did a good job revising their manuscript and have satisfied most of the reviewer comments. I have a few minor suggestions below.

We thank Reviewer #1 for their follow up review of the manuscript and feel that the manuscript benefits greatly from their dedicated comments and editing.

The authors seem to suggest that only coral calcification contributes to reef formation. My understanding is that other calcifiers, coralline algae in particular, also produce CaCO₃ that contributes to reef structure. It may be helpful to talk more about losing complex 3-D habitat if corals are replaced by other calcifiers, but I will leave this to the authors' discretion.

This is a good point and it is important to clarify we mean the loss of 3D structure and complex habitat.

In the abstract on L24 we have added “complex, three-dimensional reef structure” to clarify the type of accretion loss.

On L492, we have added the sentence “Although some of these calcifiers still accrete limestone structure (e.g., coralline algae), none replace the complex, three-dimensional structure uniquely created by corals.”

On L555, we have clarified the reduced capacity for “complex, three-dimensional structure”

Line 29: “corals... are a... species”: Plural vs singular mismatch?

Thanks for catching, we have changed to “coral....are a....species”

Line 31: not sure “secrete” is the best verb: “precipitate”, “build”, “construct”, “form”, etc. would be better

Agreed, we have changed to “construct”

Throughout: typically, the word “which” only comes after a comma. There are many instances where the authors use “which” but that in my view it should be “that”.

All instances where “which” did not come after a comma were changed to “that”.

Line 57: delete “that”

Deleted

Line 214: punctuation typo here

Edited into 2 separate sentences.

Proper spelling is “Hawai‘i”, not “Hawai’i”

Thanks for identifying the need for an Okina, not an apostrophe. We have inserted “`” instead of “ ’ ” to represent the Okina. Perhaps this can be addressed in the preprint process.