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Interactive comment on “Biostratigraphic evidence of dramatic Holocene uplift of Robinson Crusoe Island, Juan Fernández Ridge, SE Pacific Ocean” by P. Sepúlveda et al.

Anonymous Referee #2

Received and published: 24 November 2014

The manuscript "Biostratigraphic evidence of dramatic Holocene uplift of Robinson Crusoe Island, Juan Fernández Ridge, SE Pacific Ocean" by Sepúlveda et al. is a rather straight forward case-study from the Pacific on an extreme volcanic ocean island uplift, as judged from sedimentology patterns and existence of fossilized marine gastropods as high as 70 m above the present sea level. It offers a clear example of such uplift, whereas most island volcanos are found to subside with time. Besides reporting the case-study the authors also try to explain why such uplift may have taken place. General comments:

1) The use of biostratigraphy and sedimentology data makes the manuscript suitable for publication in the Biogeosciences venue, and its focus on a volcanic island fits

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well with the special issue (Geological and biological development of volcanic islands) where to it was submitted.

2) The authors should consider adding a paragraph or two to the Introduction where they would give a better overview on how volcanic islands generally behave in terms of subsidence/uplift (and add some more references). Referring to Darwin was nice, but this part is missing more substance to better support the overall discussion on different possible reasons for such an uplift taking place.

3) Since most studies in the present special issue deal with the volcanic island of Surtsey, Iceland, it would be nice if the authors would make some link to it in their introduction/discussion. The Surtsey island has been subsiding (as most island volcanos) during the initial decades since emergence in 1963-1967: see e.g.:

a. <http://link.springer.com/article/10.1007/BF00301116#page-1>

b. http://www.surtsey.is/SRS_publ/2009-XII/low_res/2009-XII_039-047_Precision-lw.pdf

Specific comments:

1) P13611 – lines 23-26: This is not a separate paragraph as the text is structured. Merge with the above paragraph.

2) P13612 – line 26: Your claim that “The bathymetry in fact seems to indicate a relative subsidence of this part of the oceanic crust” would be stronger if you could supply some original reference with it. . . (is Becker et al. 2009 the only possible reference??)

3) P13613 – line 27: I assume you are referring to Beckeer et al. (2009) when you quote the “low resolution bathymetry”?? Are there other possible sources of bathymetric data for this region?

4) Please check once again that all references in the text are found in the reference list and vice versa (The reviewer did not find e.g. the reference Watts and Ten Brink

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(1989) on page 13613. The authors should also supply doi numbers with all references that have such numbers. See: Guidelines to Authors on how a reference list should be formatted.

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