

Interactive comment on “Chemosymbiotic species from the Gulf of Cadiz (NE Atlantic): distribution, life styles and nutritional patterns” by C. F. Rodrigues et al.

Anonymous Referee #1

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This paper samples the species diversity and stable isotope content of symbiotic species around mud volcanoes in the Gulf of Cadiz. The sampling encompasses a wide depth range and varying environmental and chemical characteristics of the sediments. From this, the authors describe the distribution of chemosymbiotic species (which have an unusually high diversity compared with other seep regions of the world) in the context of the known environmental characteristics of the different sites to infer why species may occur at certain places and why this region may support such high diversity. Stable isotope analysis of tissues from select species gives insight into the primary inorganic carbon, nitrogen, and sulfur sources and the mode of carbon fixation used by their symbionts. This work forms a basis for future studies on trophic ecology

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and resource partitioning among species, especially those that appear ecologically similar, inhabit the same space, but have different isotope contents.

I found the methods, analysis, and conclusions of this paper to be appropriate for the purposes of this study. I have made a few minor comments about the scientific content of the paper and many edits for spelling, grammar, and syntax. Besides the errors due to the authors not being native English speakers, the manuscript is generally clear and well-organized. Though I have pointed out a few of the errors, a more thorough reading by a native English speaker would help to put all of the commas in the right places. I recommend this manuscript for publication in Biogeosciences.

More specific comments can be found in the attached pdf file.

Please also note the supplement to this comment:
<http://www.biogeosciences-discuss.net/9/C7395/2013/bgd-9-C7395-2013-supplement.pdf>

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