Biogeosciences Discuss., 9, C7032–C7033, 2013 www.biogeosciences-discuss.net/9/C7032/2013/ © Author(s) 2013. This work is distributed under the Creative Commons Attribute 3.0 License.



## Interactive comment on "Bathymetrical distribution and size structure of cold-water coral populations in the Cap de Creus and Lacaze-Duthiers canyons (northwestern Mediterranean)" by A. Gori et al.

## A. Davies (Referee)

andrew.j.davies@bangor.ac.uk

Received and published: 4 January 2013

This is an interesting observation-based paper describing the distribution of corals within Mediterranean canyons. It is well written and well illustrated with appropriate figures and papers. I have only a few suggestions for the authors that would improve the manuscript.

-Multibeam data—Since the multibeam data forms a large part of the paper (i.e. Figure 2), I suggest that either a source citation is inserted, or a detailed description of the

C7032

multibeam data collection. Also of interest would be footprint size and whether any distributional observations can be made from the MBES. It would also be interesting if more was made of the data, especially with respects to describing the surrounding topography of each transect, it would perhaps be interesting to incorporate terrain variables (i.e. rugosity, slope, BPI) into the analysis to describe and perhaps explain some of the observations with coral distribution, colony size and orientation.

-Canyon differences- It would be helpful if the differences with respects to key parameters were tabulated or graphed from the literature sources. This summary would be interesting for readers from other sites around the world to compare with their own data.

## Minor comments

The sentence about a pair of parallel lasers is confusing and needs editing.

"In a total of 4447 linear m of sea bottom explored in CCC" needs editing

I'm not sure if Dullo et al 2008 correlated food supply with water density, can you check the validity of this statement? "Since the optimal density envelope has been proposed as the responsible for food supply to L. pertusa colonies in the northeast Atlantic (Dullo et al., 2008)"

There are some other unwieldy sentences that could be improved following a rigorous proof read.

Interactive comment on Biogeosciences Discuss., 9, 19053, 2012.