

***Interactive comment on “Diversity, distribution and spatial structure of the cold-water coral fauna of the Azores (NE Atlantic)” by A. Braga-Henriques et al.***

**Anonymous Referee #1**

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The data base for this paper, i.e., all “coral” species ever collected from the Azorean EEZ, is remarkable complete. The authors have methodically and logically combed the literature and presented an exhaustive listing of all such species records, including some apparently unpublished records (19 alcyonarians and 8 scleractinians) from the CANCEP-V expedition. Furthermore, they have cited nine new species records for the Azores (5 alcyonarians, 2 scleractinians, and 2 antipatharians). Unfortunately, there have been no publications to document the non-antipatharian CANCEP-V records (presumably in the Naturalis at Leiden?), and the nine new records are not documented at all. Stating that new records are known and not giving details is an empty exercise. Notwithstanding, the authors have wrung about all the interpretation one could

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out of the data available, especially regarding bathymetric ranges. Much of this analysis is descriptive, but Figure 7, using nMDS, is interesting in that it shows grouping of species pertaining to depth, which one might expect. Pertaining to the larger scale zoogeographic affinities of the Azores, the authors say that the Azores has a Lusitanian affinity, again not an unexpected result. Indeed, Cairns and Chapman (2001), using nMDS, graphically showed the affinities of the Azorean Scleractinia to adjacent Madeira, African coast, and other seamount chains (their region 3A). Table 5 indeed shows a 71% similarity (the highest value in the table) of the Azores corals to Cairns & Chapman’s region 3A, of which the Azores is a part. Also, the Cairns & Chapman paper stated an endemic percentage of 6% (the authors of this ms give an endemic percentage of 14% for all corals, but then Scleractinia are probably better known and thus less likely to be considered endemic). Thus, in a way, parts of this paper have been anticipated by previous zoogeographers and taxonomists, but it is a spectacular synthesis of data about coral species records for this region, and one that will certainly help conservationists and politicians to understand and regulate the use of this oceanic region.

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