

Interactive comment on “Macrofauna community inside and outside of the Darwin Mounds SAC, NE Atlantic” by N. Serpetti et al.

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This is an interesting manuscript comparing mega-corer samples from within and outside the closed area of the Darwin Mounds SAC. This paper certainly contains new information on the macrofaunal communities and is worthy of publication, certainly after some consideration of the following points:

-Historic disturbance regime– Given that the onus of this manuscript is on investigating the effect of area closure, and therefore the effect of bottom-contact fishing disturbance, it would be beneficial if there was a greater literature review and consideration of fishing effort in the area. In some analysis we did in 2007 (Davies et al, 2007, Biological Conservation), we had limited VMS information that showed the distribution of vessels travelling at a speed that tallied with bottom trawling. Whether or not this, or

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newer information could provide insight into the past history of the site with respects to disturbance I don't know, but it could be considered to provide a better quantified idea of disturbance levels.

-Inside, versus outside of SAC– This is the major factor in the work and the two areas differ by a depth range of 42-54m, could this be a strong factor in explaining the variation rather than the difference in disturbance regime? I don't feel that the data is testing a hypothesis as to whether the closure had an effect because there is no direct measurement of the effect (in this case disturbance) before it, only after it.

Looking at the map of Figure 1, the proximity of the inside SAC samples to the edge of the closure may mean that there is some fishing still occurring in the area, see above comment. It would have been interesting to accurately determine the level of benthic disturbance from perhaps acoustic mapping data, but this is outside of the scope of the paper.. Figure 1 inset, should show the 800m contour if possible.

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