

Interactive comment on “The “neutral” community structure of planktonic herbivores, tintinnid ciliates of the microzooplankton, across the SE Tropical Pacific Ocean” by J. R. Dolan et al.

J. R. Dolan et al.

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Response to Reviewers Comments of 'The neutral community structure...' Biogeosciences Discussion manuscript BGD-2007-0013

We appreciated the positive response of the 3 reviewers to our paper. Furthermore, they each made comments which resulted in significant improvements in the manuscript. Below are given, by review, the changes made in response to each reviewer's comments and questions.

Review 1 - Chust & Irigoien -

- discuss statistical test of species decay with distance

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A statement has been added to the discussion that this idea needs testing but the sampling transect we had, crossing water masses & currents, made such an attempt 'a posteriori' difficult.

- Explain causal relationship between species richness and either more size classes or more species per size class

This is now been addressed in the discussion. It is not in the Intro or Methods because it is was an afterthought.

- Introduce 'neutral theory' in the Intro

Suggestion followed, paragraph added in the Intro

- minor corrections & suggestions for changes all followed except for removing lower 'repeated half 'of the matrix table. No space will be saved, possibly it is easier for readers to find values of interest.

Review 2 Thompson

- Possible problem using a 20 micron concentrator for sampling, missing small species

This method actually produces samples with a higher concentration of tintinnids. We have used the method in studies of both marine and estuarine systems. References to these statements are now included. Higher tintinnid counts might result because settling whole water involves processing samples with a lot of very small extraneous matter which tends to mask tintinnids and the small species in particular. We can not go back and re-analyze the samples to provide definitive proof. However, a study in progress will include a direct comparison.

- Disparity between number of depths for tintinnid samples compared to chlorophyll samples.

Now explained that analyses were done both with symmetrical data sets and using the most detailed chlorophyll data set with similar results. We supplied in the paper the

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most complete chlorophyll data set.

- Need to consider hydrological conditions if discussing 'dispersal'

This correct observation ties in with the idea of reviewer 1 that we should examine 'species decay with distance (above). The same response is given in the form of our admission that the transect sampled crossed water masses and currents- our data is not suitable.

Specific corrections and suggestions followed.

Reviewer 3 McManus

The major comment was that we have a problem relating 'species' to the existing taxa defined by lorica architecture. This issue is overtly admitted and the desirability of replacing genetically, rather than lorica-, defined taxa announced in the last paragraph of the discussion.

Other corrections and suggestions of reviewer 3 also followed.

Interactive comment on Biogeosciences Discuss., 4, 561, 2007.

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4, S328–S330, 2007

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