

Interactive comment on “A Limited Effect of Sub-Tropical Typhoons on Phytoplankton Dynamics” by Fei Chai et al.

Peter Strutton (Referee)

peter.strutton@utas.edu.au

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This is a clear and concise study which debunks an idea that was the topic of a few papers a decade or two ago (I am thinking of a couple papers focussed on hurricanes off the US east coast or Gulf of Mexico). Those papers suggested, based on satellite chlorophyll, that hurricanes increase ocean productivity by stimulating mixing of nutrients. Of course satellite observations only show the surface story. The float observations presented here show the full subsurface variability. This paper shows that Typhoon Trami redistributed chlorophyll vertically, giving the appearance of increased surface chlorophyll, but in fact integrated chlorophyll and backscatter did not increase. The inclusion of backscatter is important here because it can address potential confounding issues of changes in chl:C.

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The paper is fairly well written, but I think the native/proficient english speakers in the author team should pay more attention to the grammar. The first 4+ lines of the results section can be deleted because they repeat earlier text. There are other areas of repetition too (not quite verbatim). It seems like the discussion and conclusions could be shortened.

I have a few specific comments: Line 51: Upwelling isn't really mentioned in the rest of the paper, so either delete mention of it here or explain how it occurs, and follow up later. L88...: Delete "" around instrument model numbers. L102: Explain 'less than 300km' better. Is this a 300km x 300km box? A circle of radius 300km? L122: 10m intervals ... line 91 says 1m. L133: 0.18 and 0.15 are 0.13 and 0.08 higher than pre September 29. I don't understand.

Figures: It's difficult to see much of an increase in shallow chl in Fig 2b. The increase is more obvious in Fig 4b but that figure also made me wonder why there is an increase above the base of the mixed layer before Sep 30.

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