

Interactive comment on “Seasonal variations of viral- and nanoflagellate-mediated mortality of heterotrophic bacteria in the coastal ecosystem of subtropical Western Pacific” by A.-Y. Tsai et al.

Anonymous Referee #1

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The paper “Seasonal variations of viral- and nanoflagellate-mediated mortality of heterotrophic bacteria in the coastal ecosystem of subtropical Western Pacific” is reporting the results of investigation on mortality of bacteria caused by nanoflagellate grazing and viral lysis determined with the modified dilution method. The scientific approach and applied methods appears to be valid and obtained results to be sound. This paper is acceptable with overall quality of “Good (2)”.

I would like to point out that the discussion is not sufficient about the imbalance between the total bacterial production and the loss by nanoflagellate grazing and viral lysis. The authors attributed it to grazing by ciliates, but the discussion went half way.

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I request more information and profound discussion on a possibility of other grazers on bacteria in the sea such as appendicularia (Oikopleura) etc. PNFs (photosynthetic nanoflagellates) are also the influential candidates of bacteria grazer due to their myxotrophic behavior.

Since the population dynamics of bacteria are in the time scale of hour to day, and you need almost every day measurement about bacteria in order to understand the entire picture. This is an important problem, and I hope you conduct the work of short period of 1 ~ 2 weeks in your area in the future.

Interactive comment on Biogeosciences Discuss., 9, 17235, 2012.

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