

Interactive comment on “Coupling of fog and marine microbial content in the near-shore coastal environment” by M. E. Dueker et al.

Anonymous Referee #1

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General Comments The authors use a culture-dependent approach to look at the microbial diversity of aerosol samples at a coastal site. The results are carefully analyzed and they are interesting and provide information on the important topic of aerosols and their components.

Specific Comments Like any such approach there are biases based on the use of agar media to obtain aerosol microbes. In this case the authors chose LB plates, which are based on rich media and have relatively low salinity. Other authors have used plates based on more saline media (eg Baltic seawater Fahlgren et al 2010 used Zobell Baltic seawater based plates). The authors have thus greatly biased the types of bacteria they could find and not surprisingly find marine *Vibrios*,. These can grow on LB plates but most other common marine bacteria can not. Just because they did not

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see bacteria or *vibrios* in non-fog conditions does not mean that marine bacteria were not there or that fog increased the viability of the *vibrios*. The authors conclusions thus need these caveats to be better stated in the paper.

Technical Comments 9619 Line 11. Urbano et al was not a “terrestrial based tower”; this was Fahlgren 2010. Urbano was reported as using the SIO pier and thus over the water. The differences between this paper and the Urbano paper are very striking based on Figure . This might be again due to the plate issues mentioned above.

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