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Interactive comment on “Influence of seasonal monsoons on net primary production and CO₂ in subtropical Hong Kong coastal waters” by X. C. Yuan et al.

Anonymous Referee #1

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This manuscript covers a very small area of Hong Kong, discusses upwelling phenomenon which is well known, and relies on suspect data. There are a lot of good data in waters near Hong Kong. The authors should combine and discuss their data together with the much larger data sets in the context of the larger geographic domain. Related papers in the neighborhood should also be mentioned, if not discussed.

Having said the above, however, I do not think the manuscript publishable mainly because I have serious doubts about the quality of the data. For one thing, the seawater pCO₂ was calculated based on pH and DIC. Yet, it is not even certain which pH scale the authors chose to use. The precision of pH measurements is also very poor. Fur-

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ther, the authors did not measure the CO₂ concentration in the air and chose a value of 370uatm for the calculation of CO₂ fluxes. This value is almost certainly too low as values near 440uatm have been measured in cruises near Hong Kong. Most of the stations sampled are in the harbour with heavy traffic in a city with six million people, thus the CO₂ concentration in the atmosphere must be high and variable. Without such data the CO₂ flux can not be calculated.

Interactive comment on Biogeosciences Discuss., 7, 5621, 2010.

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