

Interactive comment on “Seasonality of CO₂ in coastal oceans altered by increasing anthropogenic nutrient delivery from large rivers: evidence from the Changjiang-East China Sea system” by W.-C. Chou et al.

Anonymous Referee #2

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The authors measured pCO₂ in surface water in three seasons along with hydrographic data in the northwestern ECS and examined potential controlling mechanisms of pCO₂ including primary production, mixing, and nutrient supply from the Changjiang. Then they attempt to compare their results with those obtained from 1990's and suggest enhanced primary production caused by enhanced nutrient supply as the main cause for the long-term difference in seasonality of pCO₂ at near the Changjiang estuary.

The data appear sound and the interpretation robust. Their interpretation for the historical data does not seem far-fetched either. I believe this paper will contribute to

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advancement of our understanding of carbon cycling in coastal-shelf systems.

Technical comments: Page 18994, Line 12, 18, 19: authors need to be more specific when using “CO₂” term. Do they mean dissolved inorganic carbon as a whole or “aqueous CO₂?” P18998 Line 4: seawater sample of 0.75 ml seems to be too small. Is this a standard method? Some adjectives such as “tremendous”, “enormous” need to be changed to mean more quantitative.

Interactive comment on Biogeosciences Discuss., 9, 18993, 2012.