Interactive comment on "Physiological response of a golden tide alga (Sargassum muticum) to the interaction of ocean acidification and phosphorus enrichment" by Zhiguang Xu et al.

**Anonymous Referee #1** 

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The present manuscript provides interesting and useful information on the influence of future ocean acidification and eutrophication on a golden tide alga, Sargasssum muticum. The authors suggested that future ocean acidification and eutrophication may promote the growth of S. muticum and thus occurrence of gold tide events however, ocean acidification and eutrophication may not boost the gold tides events synergistically. The authors discussed their results reasonably within a physiological and ecological context. The experiments were reasonably performed and described. The data analysis was satisfactory and the results were clearly presented. The conclusions were sufficiently justified. The figures and tables were all adequate and essential. Therefore, in my opinion, this manuscript is suited for publication in BIOGEOSCIENCES.

Response: We really appreciate these comments.