

## ***Interactive comment on “Environmental flow assessments in estuaries related to preference of phytoplankton” by Z. F. Yang et al.***

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### Responses to comments

(1) The paper said that "various empirical relationships have been established ecosystem biomass and river discharge", there is no comparison of the method with previously known work.

In the modified manuscript, we have a further analysis on researches about environmental flow assessments based on empirical relationships between river discharges and biomass. The following sentence were added in the introduction section.

“A series of relationships between historic monthly inflow and the catch of various

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fish species were utilized in the TxEMP model to arrive at an optimized inflow/harvest relationship (Powell et al., 2002). Three species of sea grass that are sensitive to changes in salinity were selected as indicators in determining the minimum required freshwater inflow for the Caloosahatchee estuary (Doering et al., 2002). Arhonditsis et al. (2007) used spatial and temporal patterns in phytoplankton communities to indicate variations in ecosystems influenced by river flow fluctuations in the Neuse river estuary.”

(2) Language and grammar mistake:

Page2, the second line of introduction: The gradients of salinity and other environmental parameters provide critical habitats of (for) migratory species. Done.

Page4, the fourth line of 2.1: the nutrition lever for (of) primary organism biomass is calculated by the energy flows. Done.

The manuscript has been polished to improve the English.

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