We would like to thank reviewer 1 for the constructive feedback to the manuscript. Please find our detailed responses to all comments below.

Comments #1:

They over-interpreted the results and the conclusion "the stable isotope compositions of benthic consumers can act as an indicator for pelagic trophic status" cannot be supported by their limited sampling sites and data.

Response #1:

We thank the reviewer for this comment. Mapping out more sampling sites and conducting more frequent sampling can certainly improve our knowledge of using the isotope compositions of benthic consumers as an indicator for pelagic trophic status. Although our sampling sites were not many, these sites indeed encompassed large spatial scale, as well as obvious trophic gradients, from the eutrophic inshore area to the mesotrophic outer shelf. In some ecosystems with obvious trophic gradients like the ECS, the large-scaled survey of isotopic variations in benthos could provide evidence for incorporating the primary production at different trophic status via food web, thus potentially revealing the trophic status of pelagic ecosystem. Our results of the spatial trends in stable isotope are in good agreement with many previous studies which demonstrated ^{13}C enrichment of phytoplankton during the algal blooming (e.g. Gearing et al., 1991; Savoye et al., 2003; Tamelander et al., 2009) but our investigation on the benthic consumers can further couple the trophic status of pelagic ecosystem to the food utilization of benthic ecosystem. Therefore, in our study, the isotope compositions of benthic consumers are more of a tool that can potentially reveal the pelagic algal bloom than a direct indicator of pelagic trophic status.

Cited Literatures:

Gearing, P. J., Gearing, J. N., Maughan, J. T., and Oviatt, C. A.: Isotopic distribution of carbon from sewage sludge and eutrophication in the sediments and food web of estuarine ecosystems, Environ. Sci. Technol., 25, 295-301, 1991.

Savoye, N., Aminot, A., Tréguer, P., Fontugne, M., Naulet, N., and Kérouel, R.: Dynamics of particulate organic matter $\delta^{15}N$ and $\delta^{13}C$ during spring phytoplankton blooms in a macrotidal ecosystem (Bay of Seine, France), Mar. Ecol. Prog. Ser. 255, 27-41, 2003.

Tamelander, T., Kivimae, C., Bellerby, R. G., Renaud, P. E., and Kristiansen, S.: Base-line variations in stable isotope values in an Arctic marine ecosystem: effects of carbon and nitrogen uptake by phytoplankton, Hydrobiologia, 630, 63-73, 2009.

Comments #2-1:

The authors analyzed zooplankton samples only instead of phytoplankton. The authors assumed that marine phytoplankton constitute most of the carbon source for zooplankton but the carbon source for zooplankton in the ECS continental shelf may come from a mixture of terrigenous POM and marine production.

Response #2-1:

Here, we analyzed zooplankton samples instead of phytoplankton because the analyses of marine POM, which intended to represent the marine food source, were widely reported to be affected by other organic matters, such as terrestrial POM (Hama et al., 1983; Antonio et al., 2012). Moreover, phytoplankton generally have largely seasonal and spatial variability and rapid turnover rate so that the snapshot of its stable isotopic composition could barely represent the food source incorporated by the local consumers. Instead, the measurements of $\delta^{13}C$ for zooplankton could provide better elucidation of the possible mechanisms influencing the isotopic signals of the phytoplankton because they specifically feed on the phytoplankton despite the high load of terrestrial carbon in systems (Bouillon et al., 2000).

One way to ensure the feeding habits for consumers inhabiting in the systems received multiple organic sources is the stable isotope analyses. The uptake of terrigenous POM by consumers is acknowledged to result in depleted $\delta^{13}C$ signatures compared with marine primary production. Nevertheless, in this study, the carbon isotope signatures of the inshore zooplankton (mean $\delta^{13}C$ = -20.51‰ ~ -19.09‰), which were suspected to incorporate the land-based organic matters, showed even higher $\delta^{13}C$ than the offshore sites (mean $\delta^{13}C$ = -21.99‰ ~ -19.32‰). Therefore, the inshore zooplankton unlikely assimilated a mixture of terrigenous POM and marine production.

Cited Literatures:

Antonio. E. S., Kasai, A., Ueno, M., Ishihi, Y., Yokoyama, H., and Yamashita, Y.: Spatial-temporal feeding dynamics of benthic communities in an estuary-marine gradient, Estuar. Coast. Shelf Sci., 112, 86-97, 2012.

Bouillon, S., Chandra Mohan, P., Sreenivas, N., and Dehairs, F.: Sources of suspended organic matter and selective feeding by zooplankton in an estuarine mangrove ecosystem as traced by stable isotopes, Mar. Ecol. Prog. Ser., 208, 79-92, 2000.

Hama, T., Miyazaki, T., Ogawa, Y., Iwakuma, T., Takahashi, M., Otsuki, A., and Ichimura, S.: Measurement of photosynthetic production of a marine phytoplankton population using a stable 13C isotope. Mar. Biol., 73, 31-36, 1983.

Comments #2-2:

It is not clear what are the organisms retaining on the 363 µm mesh.

Response #2-2:

We also examined the trawled samples with the FlowCam. Zooplankton samples that ranged between 200 to 500 µm (Equivalent Spherical Diameter) were listed as the following: Copepoda (Eucalanidae, Euchaetidae, Sapphirinidae), indistinguishable Amphipoda, Furcilia (larvae of Euphausiids) and Zoea (larvae of crab)

Most of these zooplanktons were characterized as herbivorous or carnivorous. Though the trophic levels of the zooplanktons were not exactly identical, they could be combined to represent the basic food items originated from marine phytoplankton.

Comments #3:

High chlorophyll *a* concentrations or the standing stock do not mean high productivity. The authors did not provide productivity data for phytoplankton.

Response #3:

We thank the reviewer for this insightful comment. Gong et al., (2000 and 2003) had carried out extensively photosynthetic-irradiance experiments for determining the primary production in the ECS. Results of these studies demonstrated high integrated primary production (IP = 939 mg C $m^{-2}d^{-1}$) occurred in the nutrient-enriched northwestern areas of the ECS, where were also coincident with the high chlorophyll *a* area, especially in the summer period. Moreover, in the ECS shelf waters, the euphotic zone integrated primary production was found to be well correlated with the integrated abundance of chlorophyll *a* ($r^2 = 0.88$). Therefore, we used the chlorophyll *a* measurements as a surrogate for the pelagic primary production. Also, we shall provide more information about the observed correlation between chlorophyll *a* and primary production in the ECS in the text.

Cited Literatures:

Gong, G. C., Shiah, F. K., Liu, K. K., Wen, Y. H., and Liang, M. H.: Spatial and temporal variation of chlorophyll *a*, primary productivity and chemical hydrography in the southern East China Sea, Cont. Shelf Res., 20, 411–436, 2000.

Gong, G. C., Wen, W. H., Wang, B. W., and Liu, G. J.: Seasonal variation of chlorophyll *a* concentration, primary production and environmental conditions in the subtropical East China Sea, Deep Sea Res. Pt. II, 50, 1219-1236, 2003.

Comments #4:

The authors stated that “the isotopic composition of most fish located within the schematic range of marine production indicates that they fed on zooplankton from either inshore or offshore locations in all sampling years”. However, the feeding on zooplankton by the demersal fish is questioned because the demersal fish general feed on benthos rather than plankton.

Response #4:

We thank the reviewer for reminding. The ambiguous text has been revised into “The isotopic composition of most fish located within the schematic range of marine production indicates that they relied on the food originated from marine zooplankton in either inner or outer shelf among all sampling years.”