We would like to thank all reviewers for their time and effort in improving the overall clarity and quality of the original draft manuscript. Since Rev#1 does not propose any additional changes, we address the comments and suggestions made by Rev#2.

The main point raised by the reviewer is to improve the overall framework of the manuscript to include, for example, details about management practices in the fish ponds studied. Therefore, we expanded the study description to include fishpond management in more detail (lines 78–82). We also added a short paragraph to the conclusions section putting our results in a broader context (see lines 451–460). As suggested, we went through the text carefully and made technical changes to standardise units, unify formatting or correct typos.

Specific comments (our reply is red):

48-49, After reading the references cited here, I remain skeptical that phytoplankton are themselves producing methane, please qualifying this statement by reframing with an appropriate term such as “preliminary” or “potential”.

Done.

76, Missing digits in Lat/Long?

Added.

324-330, It is unclear which ponds are being referred to in these two sentences. Upper layers being O2 saturated and sediments being anoxic does not consistently fit the data from Fig. 6, but the next sentence starts with “In such [systems]”.

That's a good point. However, the confusion may rise only in September, where oxygen concentration in the water layer right above the bottom was around 6-7 mg L^{-1}, corresponding to hypoxic conditions but not to anoxia. Noteworthy, when the oxygen probe was accidentally buried in the sediment, oxygen concentration went rapidly low down to zero. Therefore, we believe that even in September, there was anoxia in the sediment with a steep gradient at the water-sediment interface. To avoid confusion, we start the sentence with „In hyper-eutrophic systems“

333, Here too, which kinds of ponds?

Specified, see line 339.

339 – 349, Is it that ebullition is the dominate pathway in hyper-eutrophic ponds, or most small water bodies?

In the paper referred to, the statement is related to the trophic state but not directly to the size of the system. Since the size may vary significantly among the systems, we, therefore, specify the aquaculture production rather than the size of the ponds, see line 346.

377, Is 4 to 24 mg L-1 O2 meant to be the gradient here? If so, "…a gradient of more than 4°C and 20 mg L-1 O2" would be clearer.

Done.

424, Be specific about your estimate here, what is the value?
Done, see lines 429–430.

432-444, formatting issue

Checked and corrected