General and major comments

Generally, the Authors addressed most of the reviewers' comments or justified their decision not to change parts of the text. The manuscript is substantially improved and, after addressing minimal concerns, should be published in Biogeosciences.

I understand the reasoning behind the author's choice of the unified scales of the plots and their narrative on different rates of change registered in different lake zones, especially given their further explanation, which has some merit. Even though I accept this choice, I must articulate that I can't entirely agree with it. But this might be a matter of perspective and different principles.

We thank the referee for his careful review.

Specific and minor comments

65: The sentence about the X-ray ends abruptly. Otherwise, I appreciate the improved text here.

The sentence was rephrased.

70: these references could use some fundamental works, like Naeher 2013, Engstrom 1985…

I thank the reviewer for his suggestions that were added as references.

494: riverine…

Implemented.

518: A little more care in reasoning about the role of focusing (or lack thereof) - especially geochemical focusing with recurring stratification/mixing events - is needed here. Specifically, Fe and Mn are potentially enriched every time the lake goes through the turnover/stratification cycle. It fits the story of strengthened hypoxia, stratification, and eutrophication.

Implemented. The discussion on sediment focusing was expanded (see lines 518-523).