

CC4: ['Comment on essd-2022-395'](#), Ethan Welty, 02 Feb 2023

Dear Ethan,

thank you for a careful reading of the manuscript and the immensely helpful suggestions made, greatly appreciated. We have addressed each of them individually below, with your comments in *Italics* followed by our responses in **bold**.

1. I would advise against adopting an identifier of the form GF{longitude}E{latitude}N_{counter}. It may at first seem like a convenience to build in spatial coordinates into an ID, but what if the coordinates are later changed? Then either the ID has to be updated (please never do this) or the coordinates in the ID no longer match those in the table (which can also lead to confusion). Furthermore, at least in the case of GLIMS, it has led to people generating their own "GLIMS" IDs which don't actually exist in GLIMS (e.g., "one day, when I submit my data to GLIMS, it will have this ID").

We agree that GLIMS IDs can change depending on who determines the location on the lake. However, compared to using the lake name (majority of lakes lack names) or the conventional method of numbering lakes based on their position relative to the major stream in a clockwise direction, this method offers a simple and convenient way of identifying and locating specific lakes. If we go with a name identifier we are faced with having to call many 'Unknown' or even worse are faced with the added confusion of numerous transliterations of local names. A running ID does not seem feasible considering the database will incrementally increase. We are also not sure why coordinates should change in the future. Each GLOF event is a separate historic event. If the location of the lake shifts considerably, it will be a new lake and hence a new ID.

We agree however that suggesting that this is a GLIMS identifier is not helpful, as it confuses it with the original database and we do want to suggest that what we provide here should be in future associated with GLIMS. We have therefore removed the GF at the beginning, and call it a GLOF ID (you could also see it as a random set of alphanumerals, with the added benefit of holding some location information). We have also adapted the phrasing in the manuscript.

2. Looking at Table 1, it seems like, since each lake can have multiple GLOFs, that the database would benefit from being split into two tables: one for lakes and one for GLOFs? This is less a concern if the database exists in a split (i.e. "normalized") form, and the tables are joined into one for publication, since the underlying structure ensures that lake attributes are always the same for all GLOFs associated with that lake. But if the data is maintained as a single table, this consistency is not guaranteed.

Reply: The database aims to provide additional information beyond the frequency of GLOF occurrences. Multiple GLOFs from the same lake can have varying impacts based on the degree of their drainage, so only the socioeconomic factors and outburst date will undergo modifications in the attribute, as you rightly pointed out. However, and this may have been confusing on our part, we should clarify that the paper really only attempts to characterize GLOFs, not lakes. The IDs of lakes, used in also in databases that are not produced by us are placed in the database for GLOFs to make a direct association with GLOF events possible, where we can ascertain the source. Also following suggestions by reviewers, we now removed the part describing the lake databases as well as the associated discussion, focusing specifically only on GLOFs and hope that this clarifies the intention here.

3. You write that HMAGLOFDB_Metadata.txt is "machine-readable". Certainly, a machine can read each character of a text file, but what matters more is that the content of the file follows a standard format. Is it JSON, YAML, XML, ...? The .txt file extension suggests that it follows no such convention.

The metadata file so far was indeed not in .yaml or .json. Following this suggestion and the revision of the database, we have however decided to write it into YAML format and have updated this in the new database.