

Review of “Subglacial lakes and hydrology across the Ellsworth Subglacial Highlands, West Antarctica” by Napoleoni et al.

The revised article addresses the major challenges with the lake volume estimate. The methods section shows improvement in clarity. The revision provides a more nuanced discussion of the potential for dynamic hydrology. Some minor revisions are recommended for further improving clarity and writing quality.

Specific comments:

Line 51: “many hypotheses remain untested”

Which hypotheses? A more specific statement would be helpful for improving clarity.

Line 188: “BedMap2” → “Bedmap2”

There are other lines in the text that also need to be corrected to Bedmap2.

Line 198: “since Bedmap2...”

Informal language.

Line 242: “subglacial range” → “subglacial mountain range”?

Line 286: “Figure9c” → “Figure 9c”

Line 304-305: Is this sentence intended to be a single paragraph? Or should it be appended to the paragraph above?

Line 406: “Likely?” or possible

Line 414: “displace ... water along this routing” → “displace ... water along this flowpath”?

Line 412: “high hydraulic areas” and “low hydraulic areas” → “areas with high hydraulic potential”?

Line 419-420: “... it is possible that under different ice sheet configurations both subglacial lakes were connected hydrologically.”

Is it also possible that the lack of connection is from uncertainty in topography or assumptions in the water routing model?

Line 472: “Bedmachine” should be “BedMachine”

Line 475: “Although new and/or more detailed subglacial water or drainage systems could be identified in future RES campaigns, the main drainage pattern would not be substantially different to that which we have identified under the modern ice sheet configuration”

The paragraph after this sentence seems to say that more RES could contribute to significant improvements in hydrological understanding, which seems contradictory to this statement. Line 437 also argues for more surveying.

Figure 7 caption: “ice sheet boundaries” → “catchment boundaries”?