

Supporting Information for "*Previously undocumented subglacial lake beneath Flade Isblink stores most of catchment runoff and delays its release*"

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1. Figures S1 and S2

Introduction

This Supporting Information document contains 2 Figures, which provide support for the applied methodology. The Supporting Figures are all referenced in the main text (S1-S2).

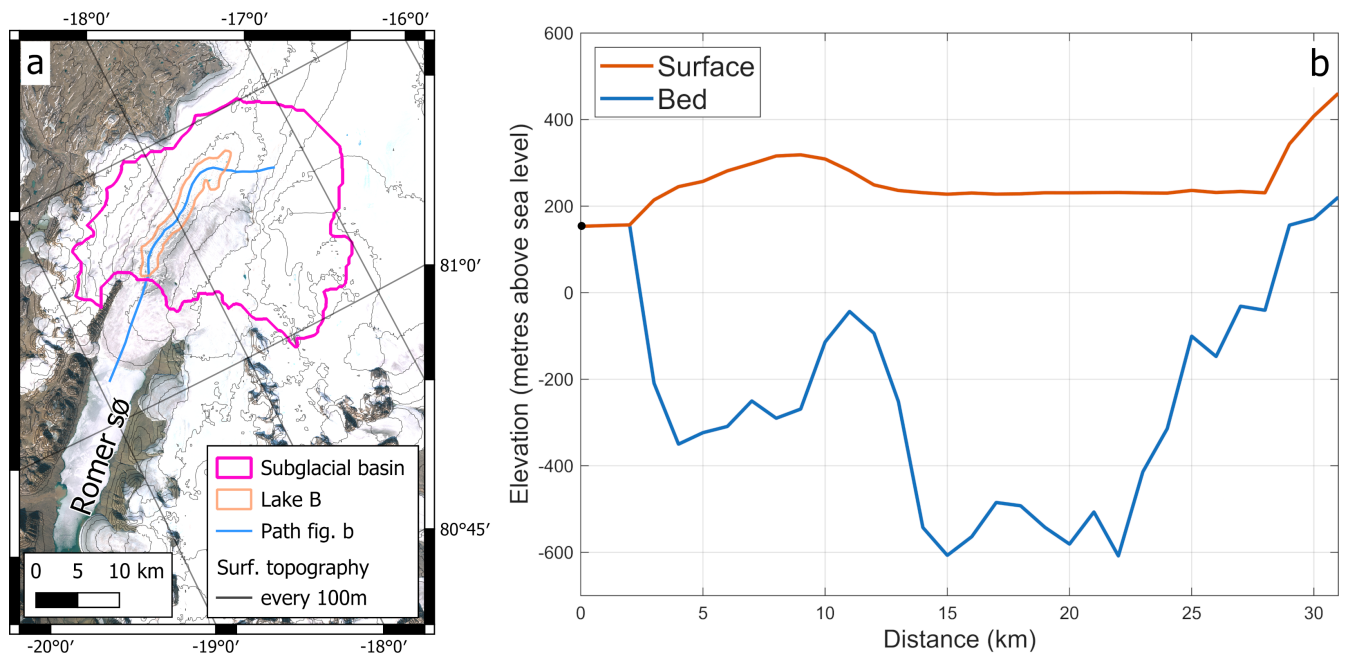


Figure S1. Location and both surface and bed topography of Lake B: (a) surface topography indicated with black contour lines. Lake B is outlined in orange, and its drainage basin is outlined in purple. The blue line corresponds to the topographies shown in the other subfigure. (b) Surface and bed topographies for Lake B's hydrological catchment. Background images are from the Danish Agency for Climate Data. Surface and bed topographies are from BedMachineV5^{1,2}.

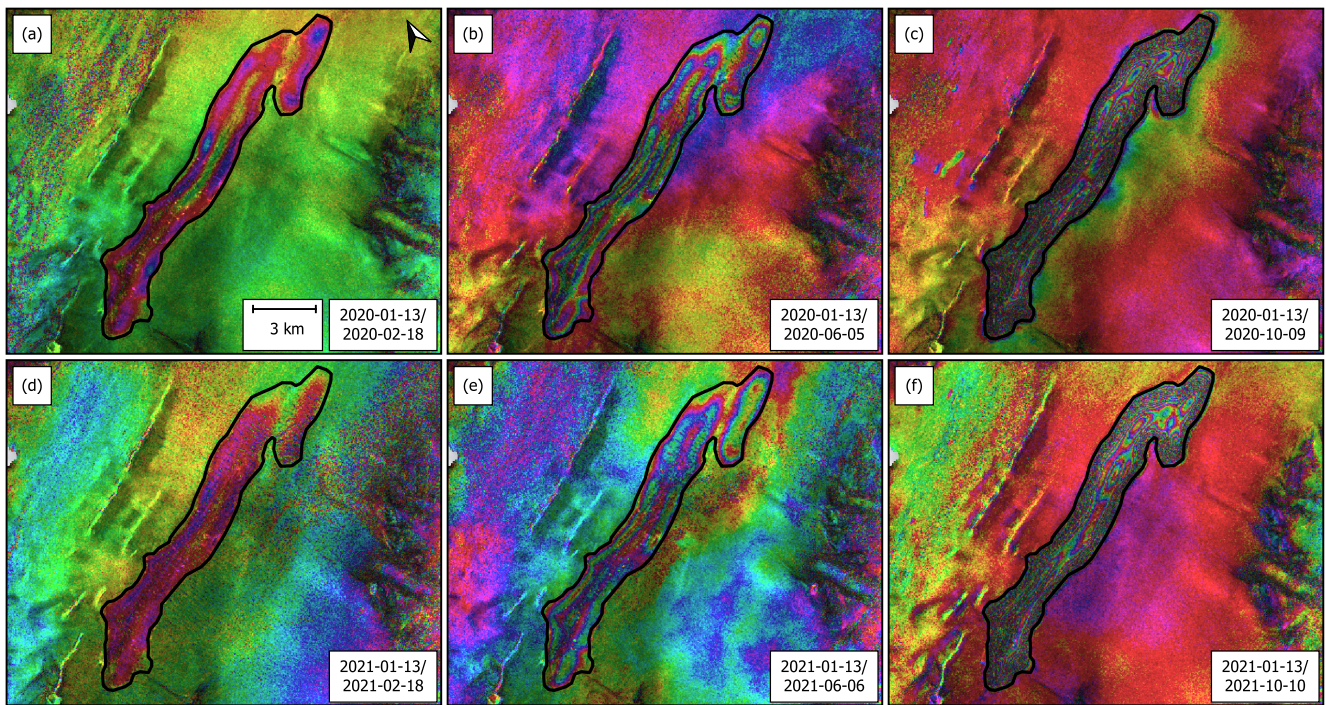


Figure S2. (a)-(f) DDInSAR images display a consistent fringe pattern on the ice surface above the subglacial lake, with the lake extent outline in black. The dates in the lower-right corner of the subfigures indicate the first and last sensing dates for the SAR images used to generate them.

References

1. Morlighem, M. *et al.* Bedmachine v3: Complete bed topography and ocean bathymetry mapping of greenland from multibeam echo sounding combined with mass conservation. *Geophys. Res. Lett.* **44**, 11,051–11,061, DOI: <https://doi.org/10.1002/2017GL074954> (2017).
2. Morlighem, M. *et al.* Icebridge bedmachine greenland, version 5, DOI: <https://doi.org/10.5067/gmevbwflwa7x> (2022).