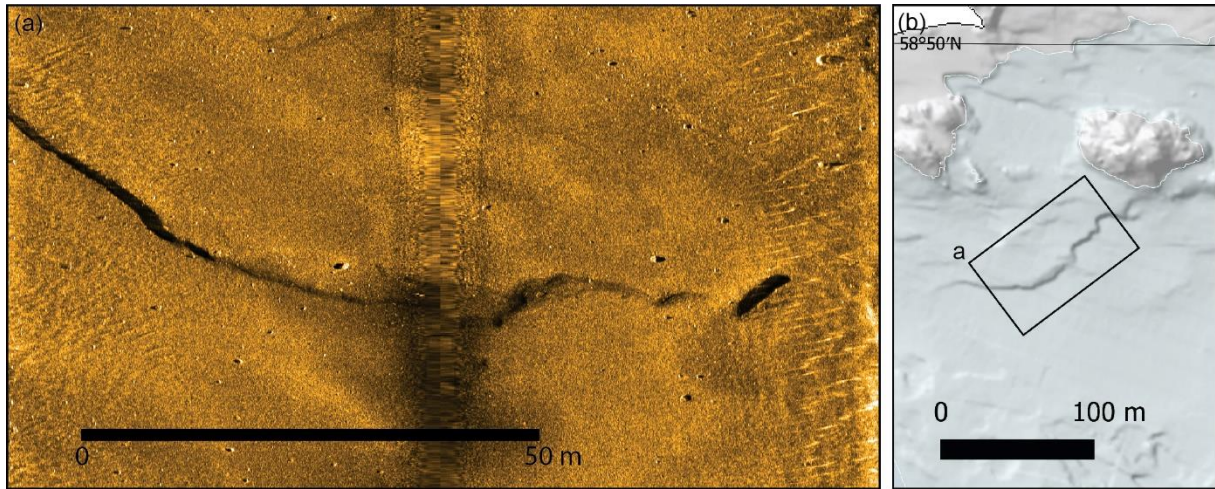
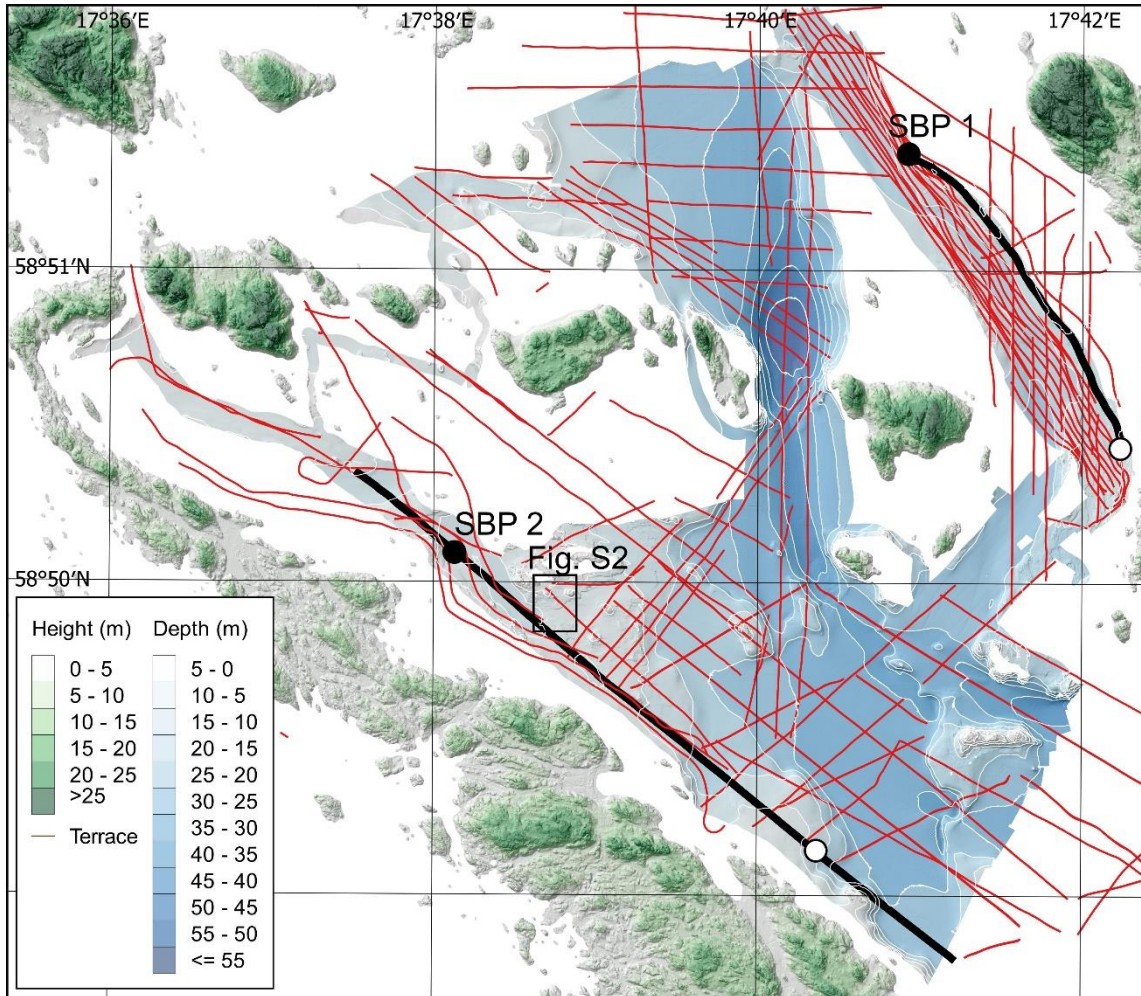


**Figure S1.** Multibeam backscatter map of the surveyed area east of the island Askö, Stockholm Southern Archipelago. The terraces systematically appear in a relatively harder seafloor characterized by higher backscatter values while the seeps generally occur in a softer seabed represented by lower backscatter. The location of Figure 2c in the main article is shown as a reference.

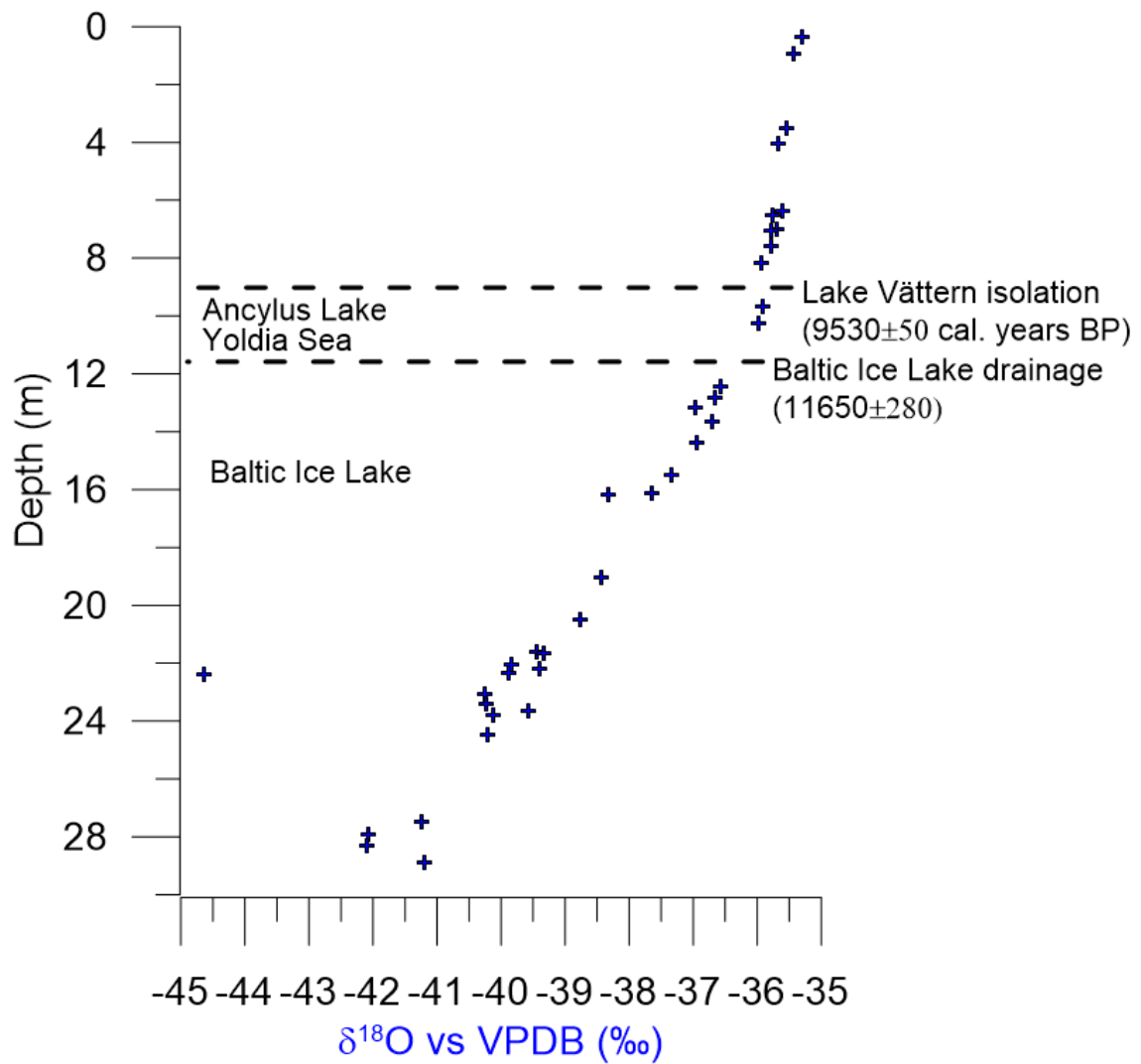


**Figure S2.** Side-scan imagery acquired in 2013 of a terrace also mapped with high-resolution multibeam bathymetry. The location of the slant-range corrected side-scan image (a) is marked by the black box in (b). The location of the area in (b) is shown in Figure S1.

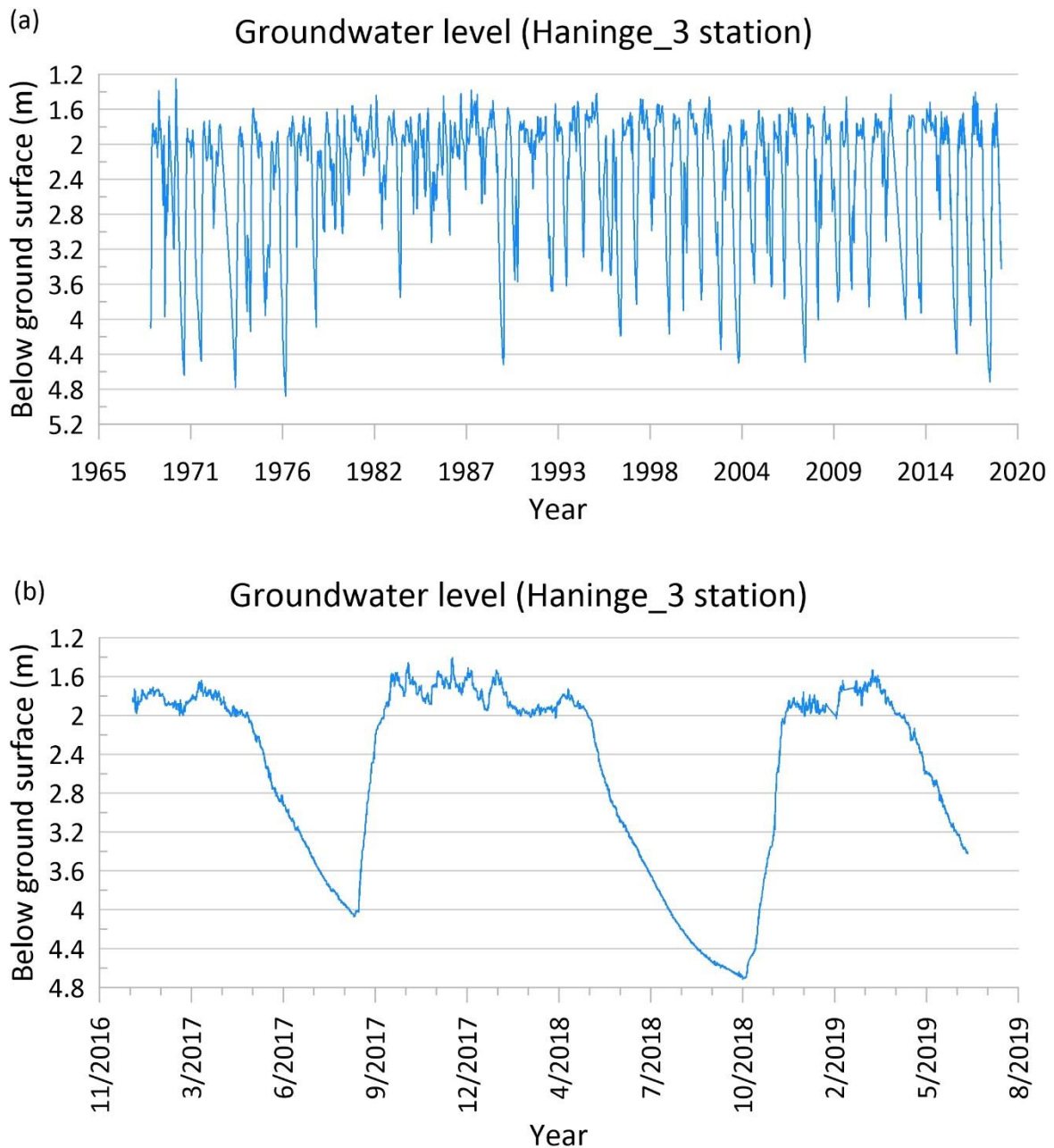


**Figure S3.** Map showing the semi-regular grid of sub-bottom profiles in the area east of the island Askö.





**Figure S4.** Measured  $\delta^{18}\text{O}$  in poor water retrieved from a 74 m long sediment drilled in Lake Vättern, Southern Sweden. Only the upper 30 m of the core is shown. The inferred ages of the Baltic Sea stages, the drainage of the Baltic Ice Lake and final isolation of Lake Vättern are from Sward et al. (2018).



**Figure S5.** Fluctuations of the groundwater level in the Haninge\_3 station located in Haninge, south of Stockholm. (a) Fluctuation between 1965 and 2019, with the last two years displayed in detail in (b). Data are from the Swedish Geological Survey (<https://www.sgu.se/produkter/geologiska-data/oppna-data/grundvatten-oppna-data/>).

## References

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