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Supplement of

Future climate and surface mass balance of Svalbard glaciers in an RCP8.5 climate scenario: a study with the regional climate model MAR forced by MIROC5

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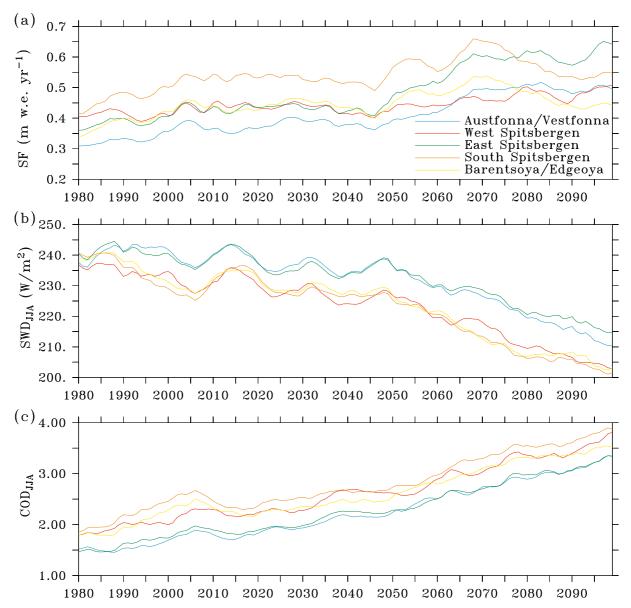


Fig. S1: (a) Snowfall (SF, m w.e. yr⁻¹) 10-year running mean for the 5 different regions shown in Fig. 3 as simulated by MAR forced by the MIROC5 based historical scenario over 1980 - 2005 and RCP8.5 afterwards. (b) Same as (a) but for the JJA incoming solar radiation at the surface (SWD_{JJA}, W m⁻²). (c) Same as (a) but for the cloud optical depth (COD_{JJA}).

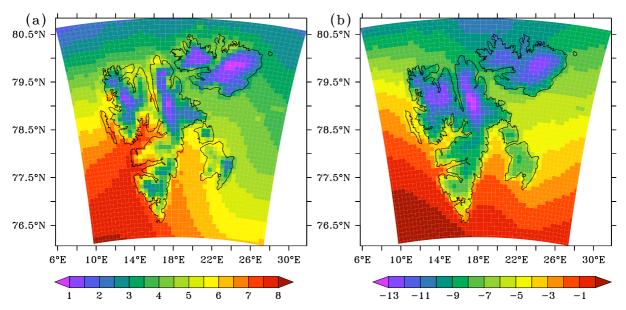


Fig. S2: (a) 2070 - 2099 mean summer (JJA) near-surface temperature (°C). (b) Same as (a) but for winter (DJF).

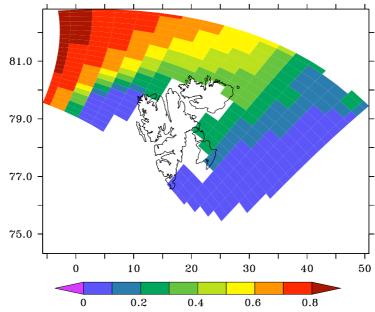


Fig. S3: 2070 - 2099 mean winter (DJF) sea-ice cover from MIROC5.