Supporting Information for "Coupling between the North Atlantic subpolar gyre vigour and forest fire activity in northern Scandinavia"

Tine Nilsen^{1,2}, Dmitry V. Divine^{3,1}, Annika Hofgaard⁴, Andreas Born^{5,6}, Johann Jungclaus⁷, and Igor Drobyshev^{8,9} ¹Department of Mathematics and Statistics, UiT - The Arctic University of Norway, 9037 Tromsø, Norway ²Department of Geography, Justus-Liebig University of Giessen, 35390 Giessen, Germany ³Norwegian Polar Institute, Fram Centre, 9296 Tromsø, Norway ⁴Norwegian Institute for Nature Research, 7485 Trondheim, Norway ⁵Department of Earth Science, University of Bergen, 5020 Bergen, Norway

⁶Bjerknes Centre for Climate Research, Bergen, 5020 Bergen, Norway

⁷Max Planck Institute for Meteorology, 20146 Hamburg, Germany

⁸Southern Swedish Forest Research Centre, Swedish University of Agricultural Sciences, 230 53 Alnarp, Sweden

⁹Chaire industrielle CRSNG-UQAT-UQAM en aménagement forestier durable, Université du Québec en

Abitibi-Témiscamingue (UQAT), J9X 5E4 Québec, Canada

Correspondence: Tine Nilsen, tine.nilsen@uit.no

Contents of this file

1. Figures S1-S3 supplementary figures.

1 Supplementary figures

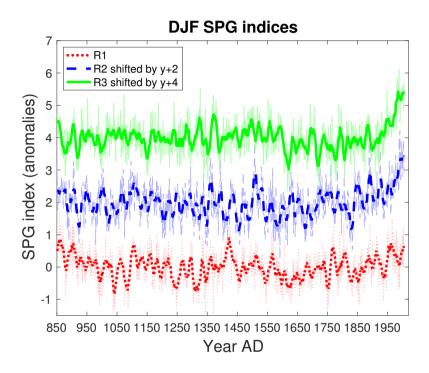


Figure S1. DJF subpolar gyre (SPG) indices for model simulations R1-R3, (anomalies). Annual values are plotted with thin lines, the thicker lines are smoothed using an 11-year running mean filter only for visualization purposes. R1 is plotted with red, dotted line. R2 shifted by +2 in the y-direction, plotted with blue, dashed line. R3 is shifted by +4 in the y-direction, plotted with green, solid line.



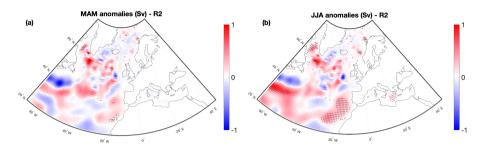


Figure S2. R2 streamfunction composite anomalies for spring (March, April, May: MAM) and summer (June, July, August: JJA). Significant anomalies are indicated by black stippling.

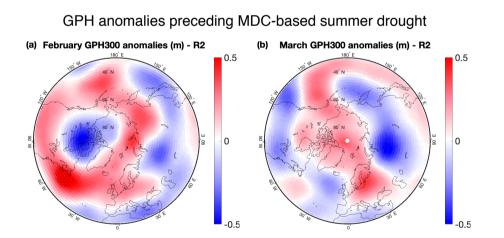


Figure S3. R2 monthly composite anomalies in 300 hPa geopotential height for February and March. Significant anomalies are indicated by black stippling.