

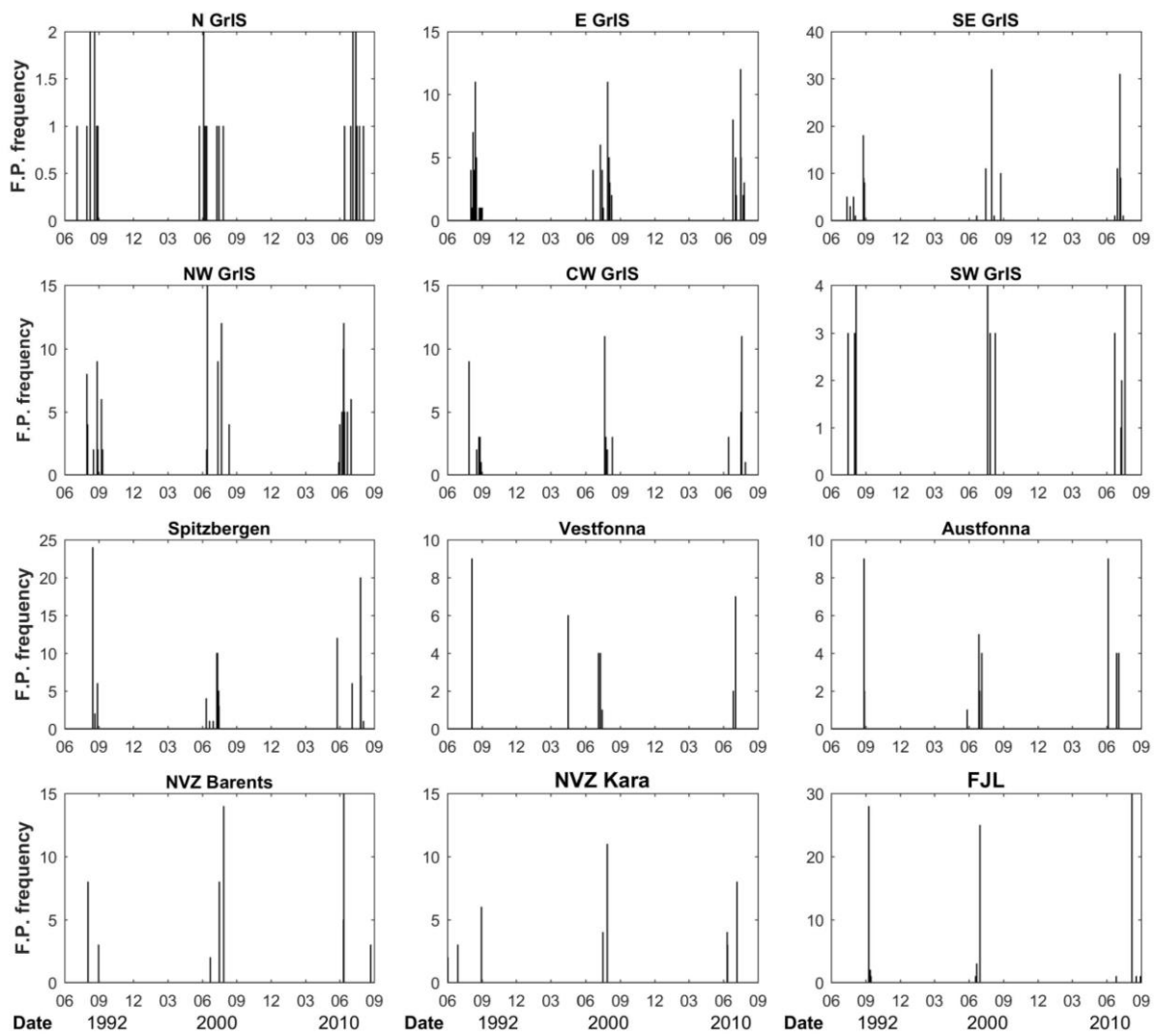
1 **Supplementary Tables**

Dataset	Data source	URL / Reference
Weather and climate Data from Greenland 1958–2010	Danish Meteorological Institute	[ <i>Carstensen and Jørgensen, 2011</i> ]
Eklima climate database	Norwegian Meteorological Institute	www.eklima.no
Climate Explorer	Royal Netherlands Meteorological Institute	http://climexp.knmi.nl/start.cgi?id=someone@somewhere
National Climate Data and Information Archive	Canadian Daily Climate Data	http://climate.weather.gc.ca
World Data Center – Baseline Climatological Data Sets	Scientific Research Institute of Hydrometeorological Information	http://meteo.ru/english/climate/cl_data.php

2 **Supplementary Table 1.** Meteorological datasets used to calculate air temperature trends  
 3 during the study period.

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5 **Supplementary Figures**

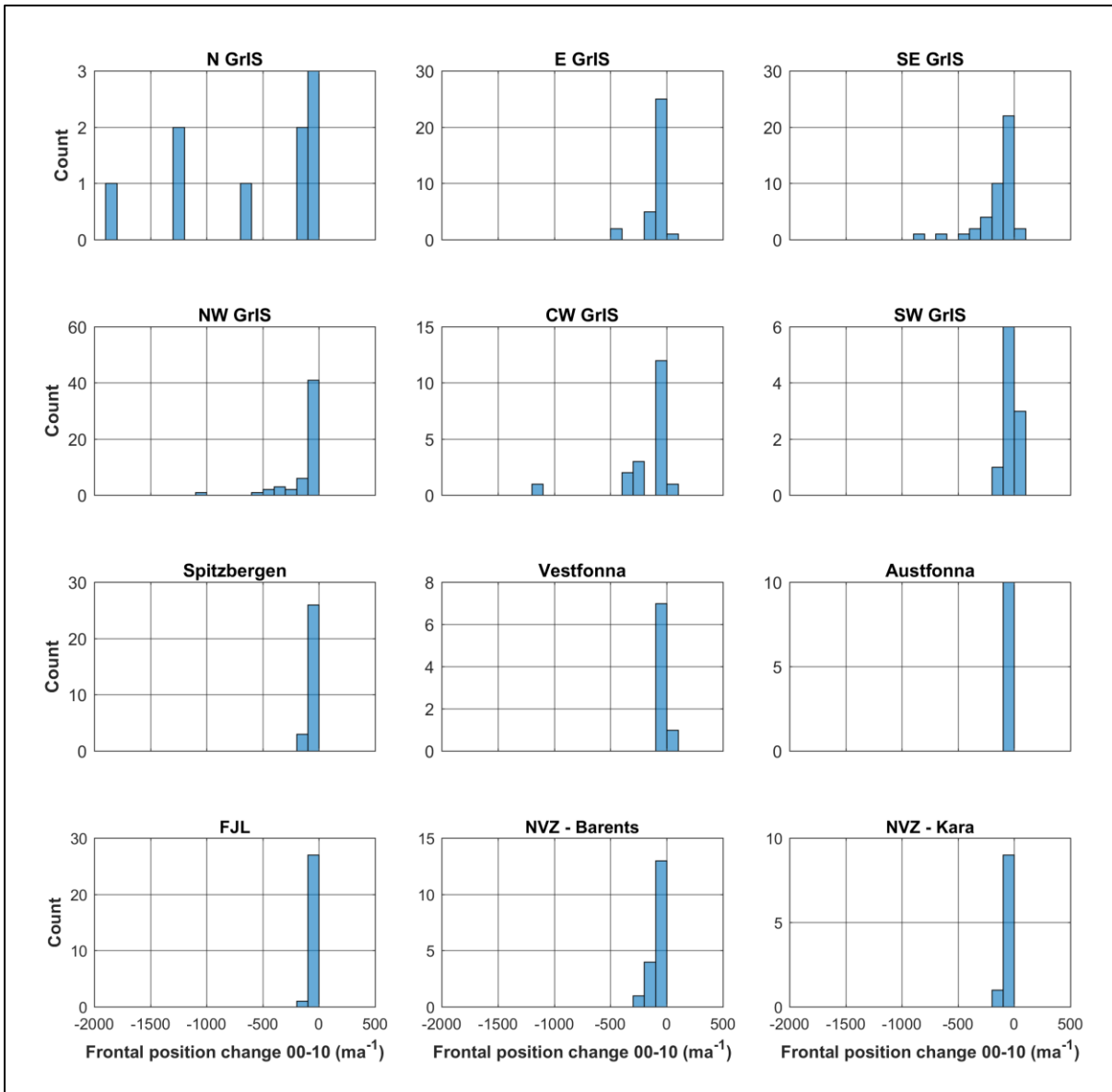


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7 **Supplementary Figure 1.** Date of glacier frontal position data acquisition, grouped  
 8 according to region, for 1992, 2000 and 2010. For each region, the number of frontal  
 9 positions acquired on each day of the year is shown.

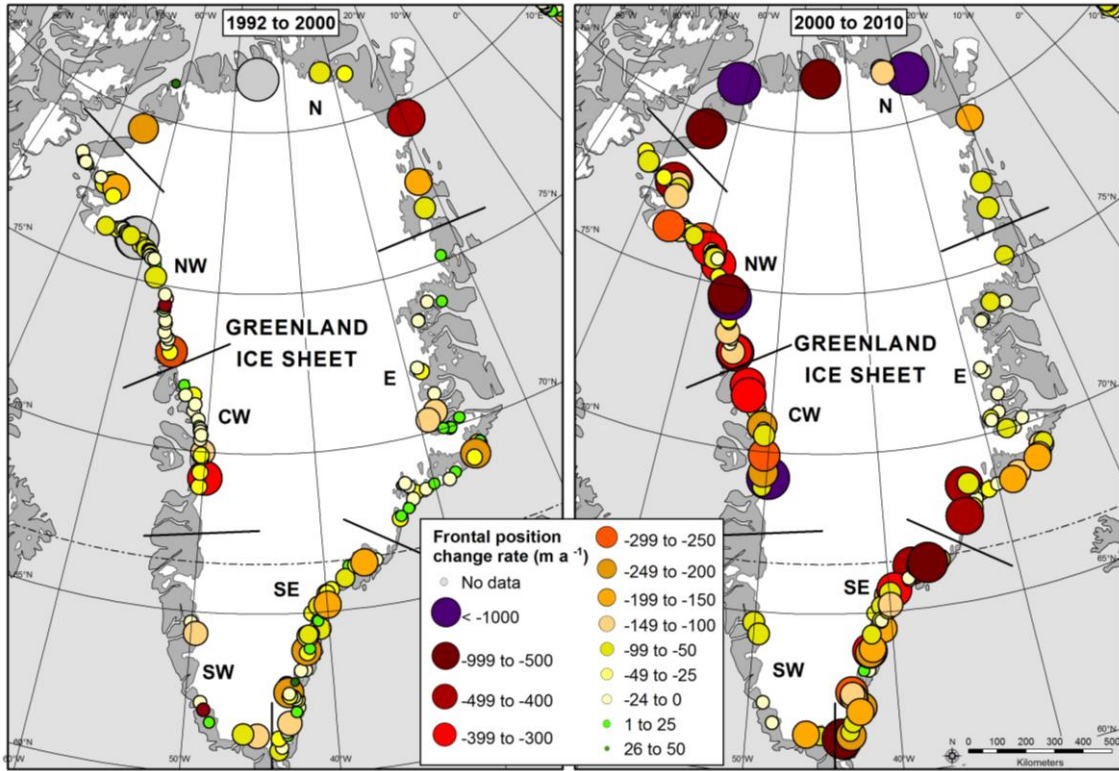
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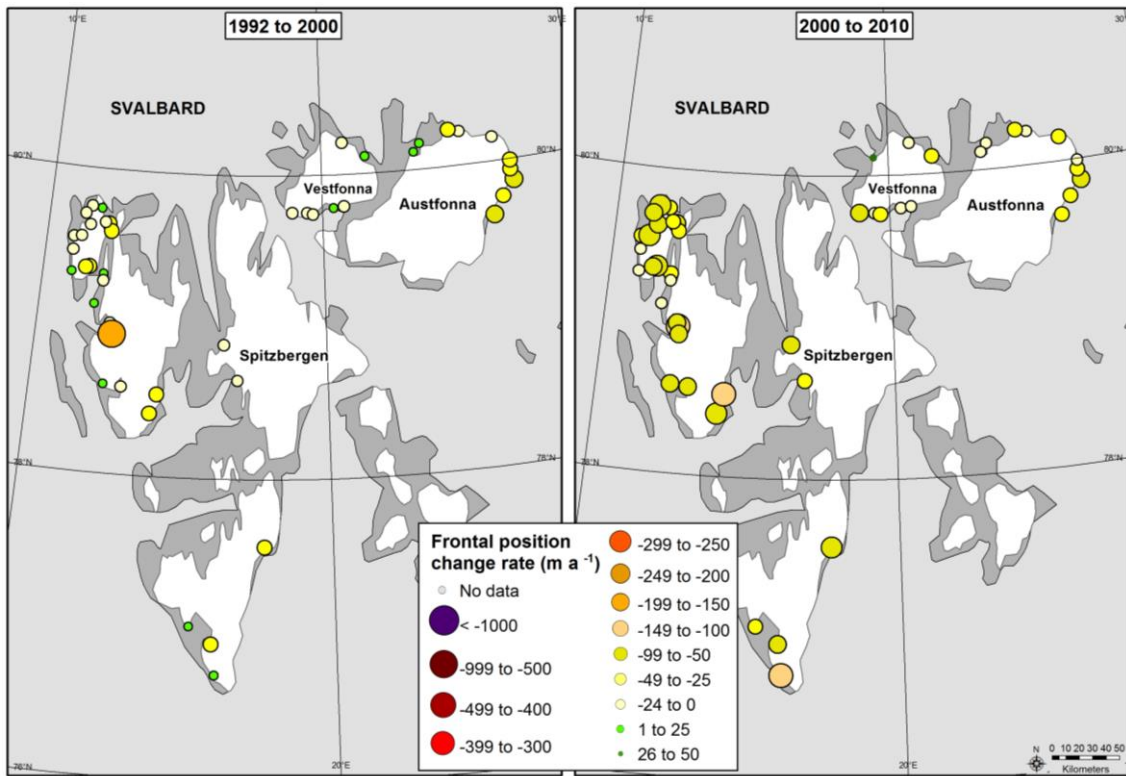
14 **Supplementary Figure 2.** Histograms of mean glacier frontal position change (2000-2010),  
 15 divided by region.



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17 **Supplementary Figure 3.** Mean marine-terminating outlet glacier retreat rates for the  
 18 Greenland Ice Sheet, for the periods 1992-2000 and 2000-2010. Retreat rate is symbolised  
 19 by colour and size, with larger symbols indicating more rapid retreat.

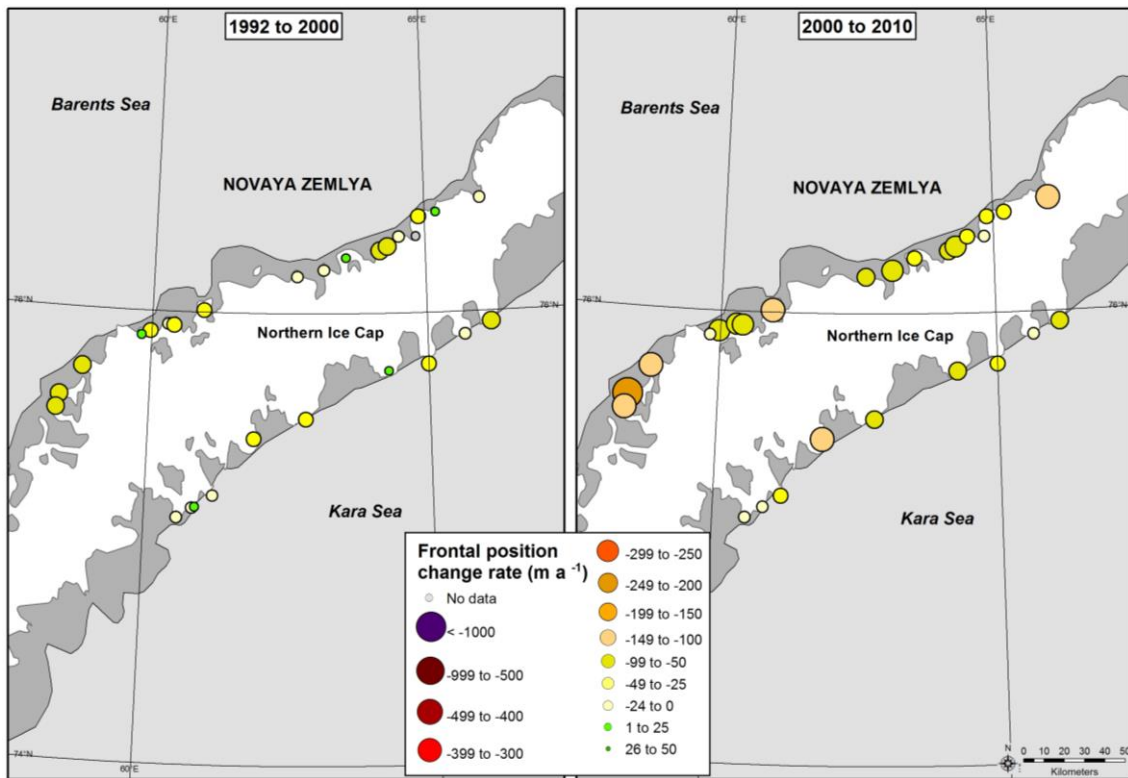
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22 **Supplementary Figure 4.** Mean marine-terminating outlet glacier retreat rates for the  
 23 Svalbard, for the periods 1992-2000 and 2000-2010. Retreat rate is symbolised by colour  
 24 and size, with larger symbols indicating more rapid retreat.

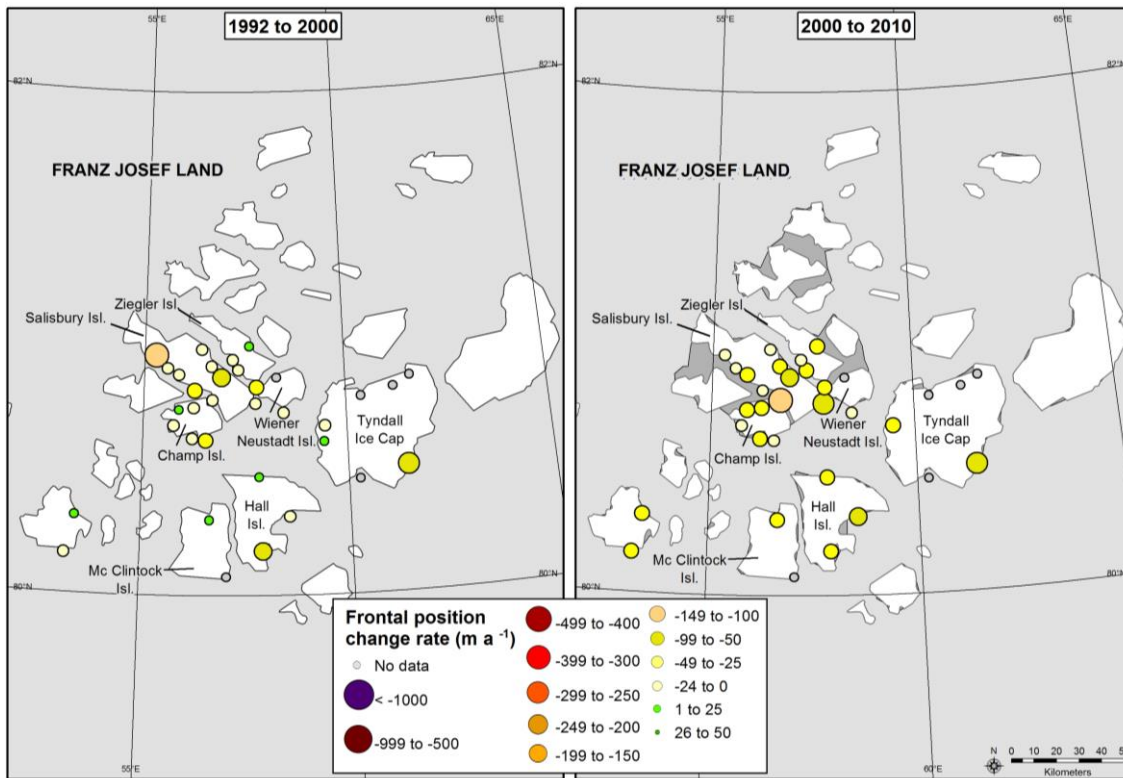
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27 **Supplementary Figure 5.** Mean marine-terminating outlet glacier retreat rates for the NVZ,  
 28 for the periods 1992-2000 and 2000-2010. Retreat rate is symbolised by colour and size,  
 29 with larger symbols indicating more rapid retreat.

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32 **Supplementary Figure 6.** Mean marine-terminating outlet glacier retreat rates for the FJL,  
 33 for the periods 1992-2000 and 2000-2010. Retreat rate is symbolised by colour and size,  
 34 with larger symbols indicating more rapid retreat.

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36 **Supplementary references**

37 Carstensen, L. S., and B. V. Jørgensen (2011), Weather and climate data from Greenland 1958-2010.,  
 38 *Technical Report, 11-10.*

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