APPENDIX E: Maps Of Gridded Wave Climate

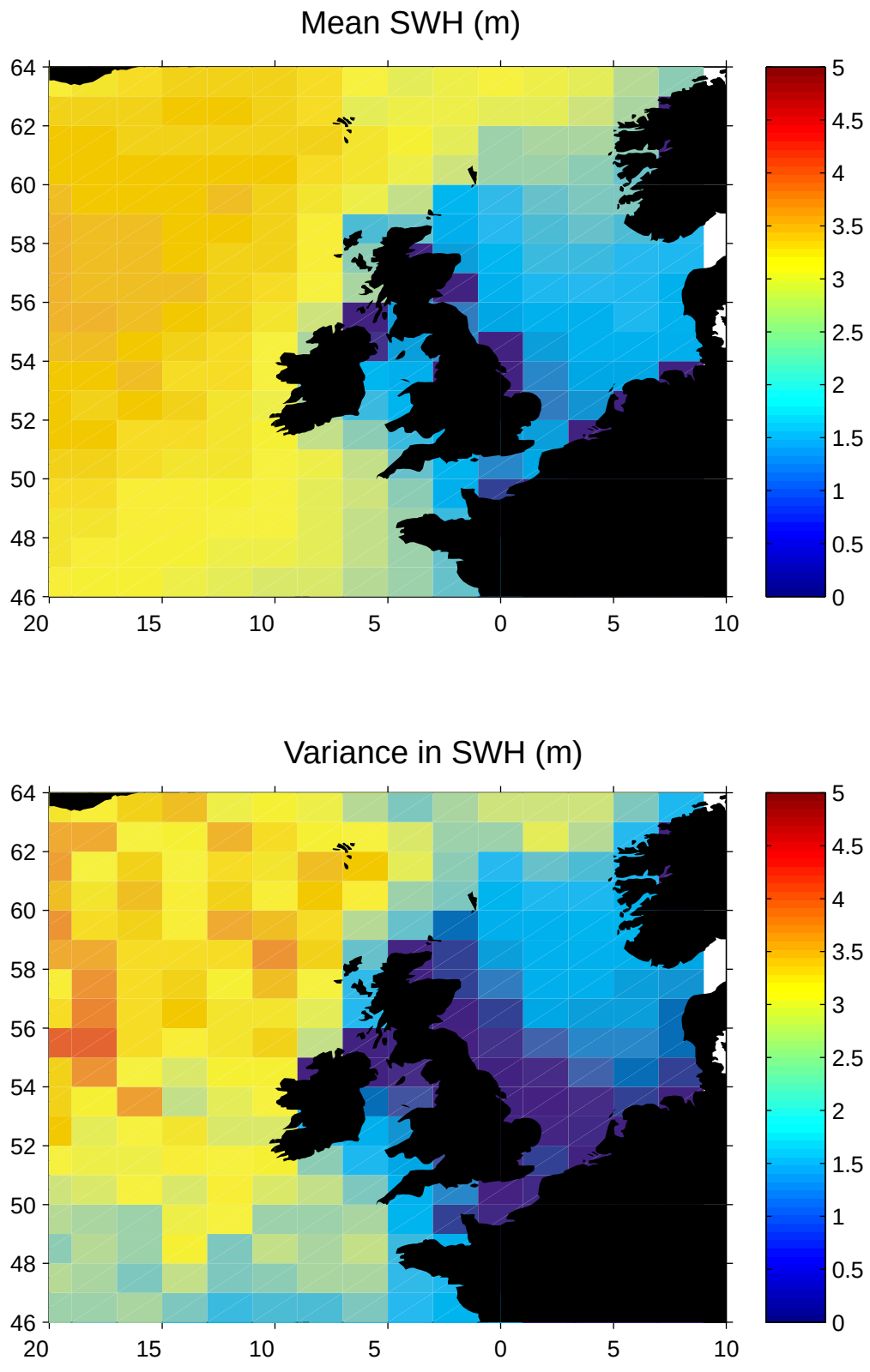
E1. Introduction

On the next 7 pages maps of gridded wave climate are presented. They have been generated from ERS-1, ERS-2 and TOPEX-Poseidon significant wave height data, and cover the 5 years, 1993-1997. The significant wave height climate data were generated on a 1¡ longitude by 2¡ latitude monthly grid. This represents the highest resolution that can be reliably be attained using sampling from two simultaneously sampling satellite altimeters. Data from each satellite have been individually calibrated according to Cotton, 1998. Earlier text in the main body of the report and in Appendix B gives more details.

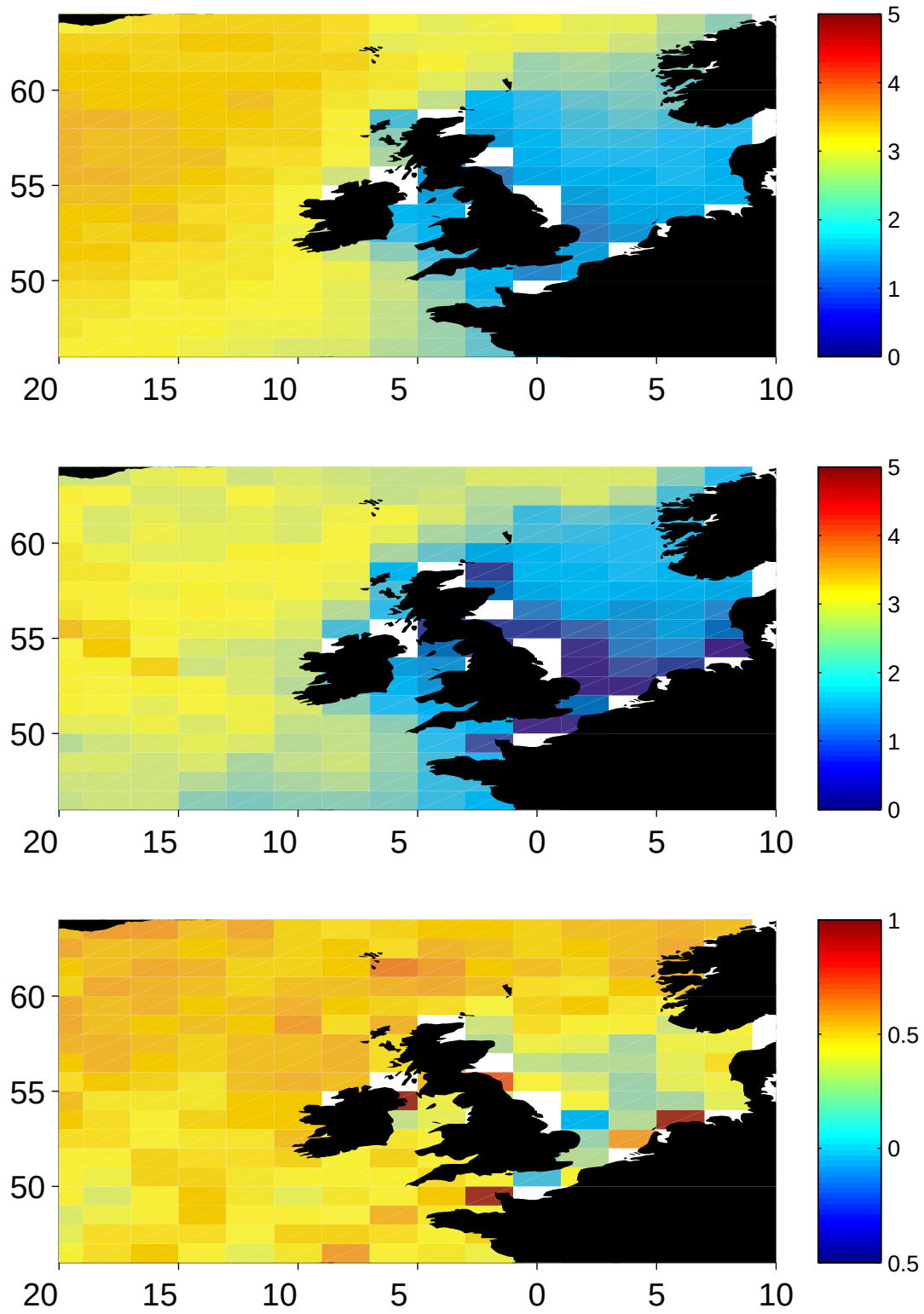
The monthly data are generated by taking the median measurement of each satellite transect across a grid square as an independent sample of significant wave height . Mean, variance, sum of squares, and other derived values relevant for compiling statistics are retained in monthly files. The full grid of data generated for JERICHO covers the region 80¡W to 10¡E, and 20¡-70¡N.

Reference

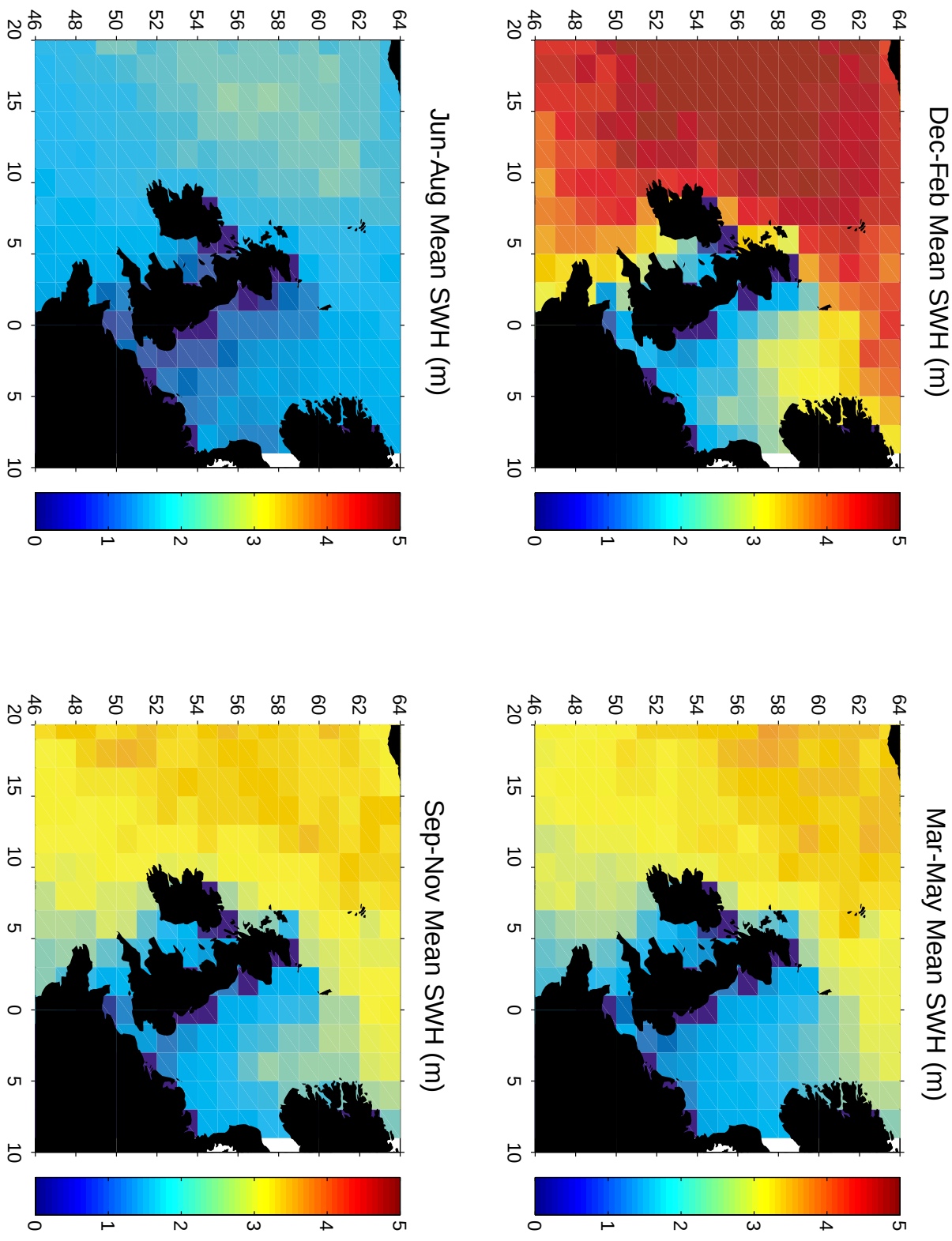
P. D. Cotton, 1998, A feasibility study for a global satellite buy intercalibration experiment, Southampton Oceanography Centre Research and Consultancy Report No. 26, for the BNSC ENVISAT Exploitation Programme .



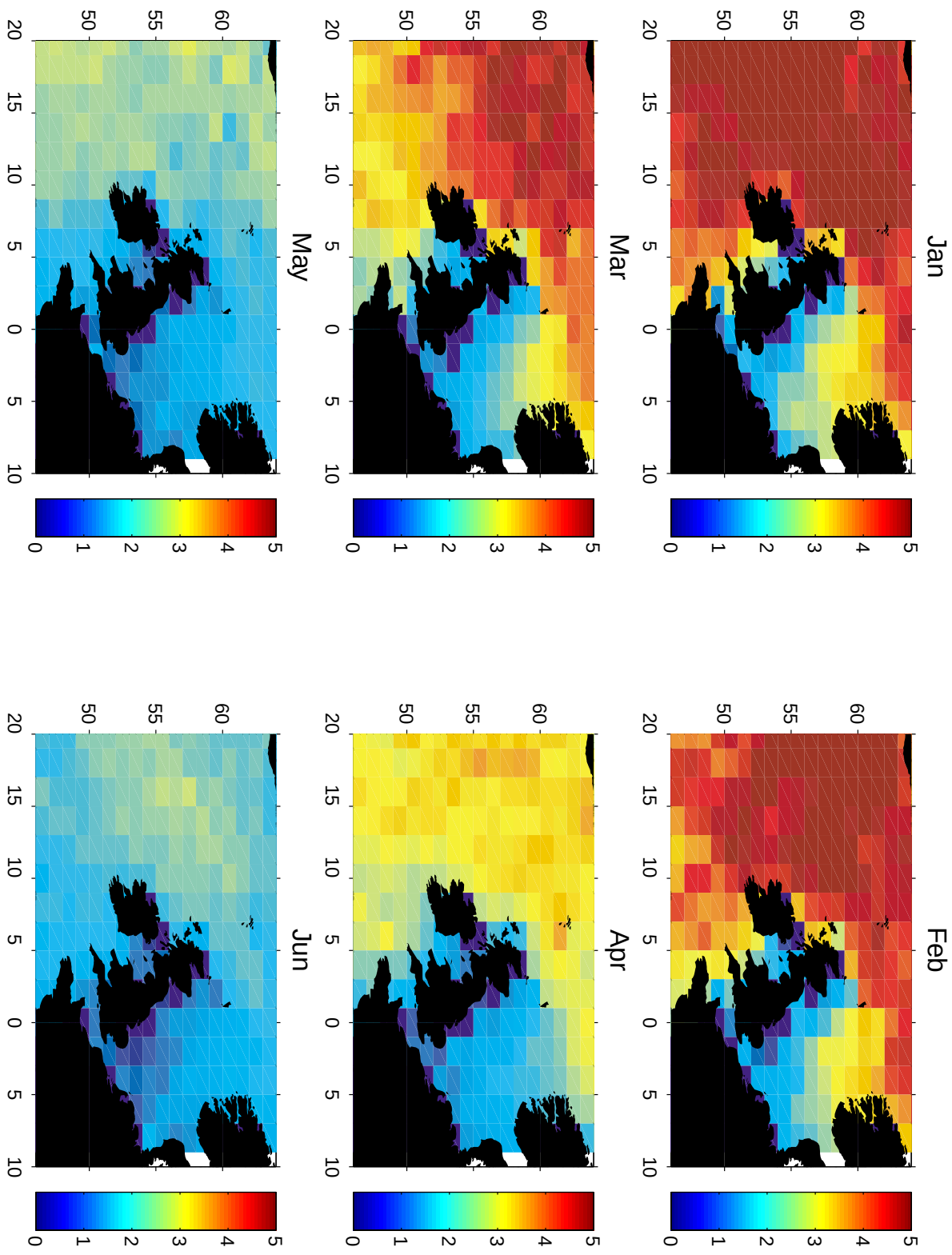
.Figure E1 Climatological Mean and Variance in Significant Wave Height (m), for the period 1993-1997.



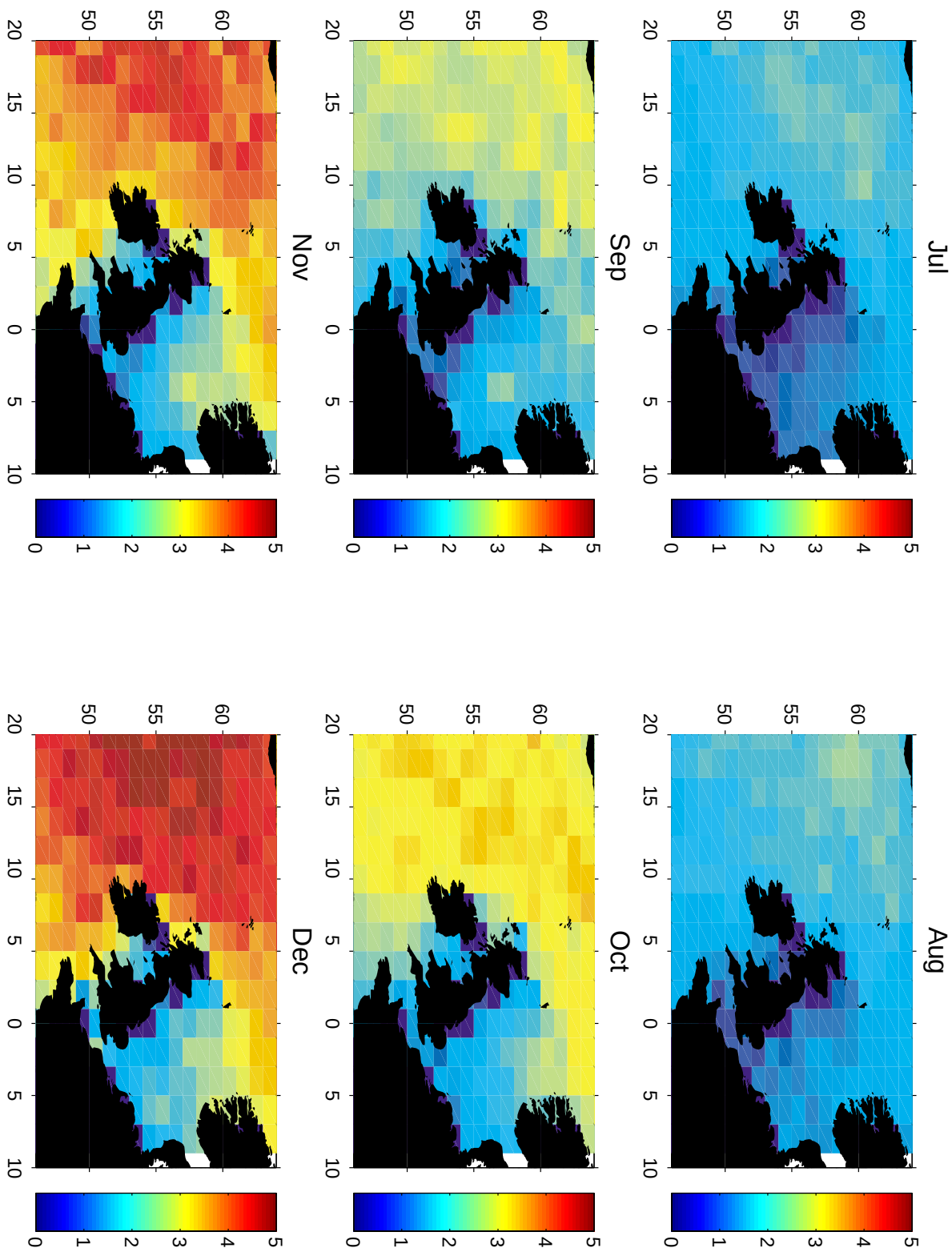
.Figure E2. The annual cycle in significant wave height, fitted to monthly mean data for 1993-97. Top panel gives the annual mean, the middle panel the range between the months with the maximum and minimum wave heights, and the lower panel gives the time (by calendar month) of maximum significant wave height (month 0 is December, month 1 is January).



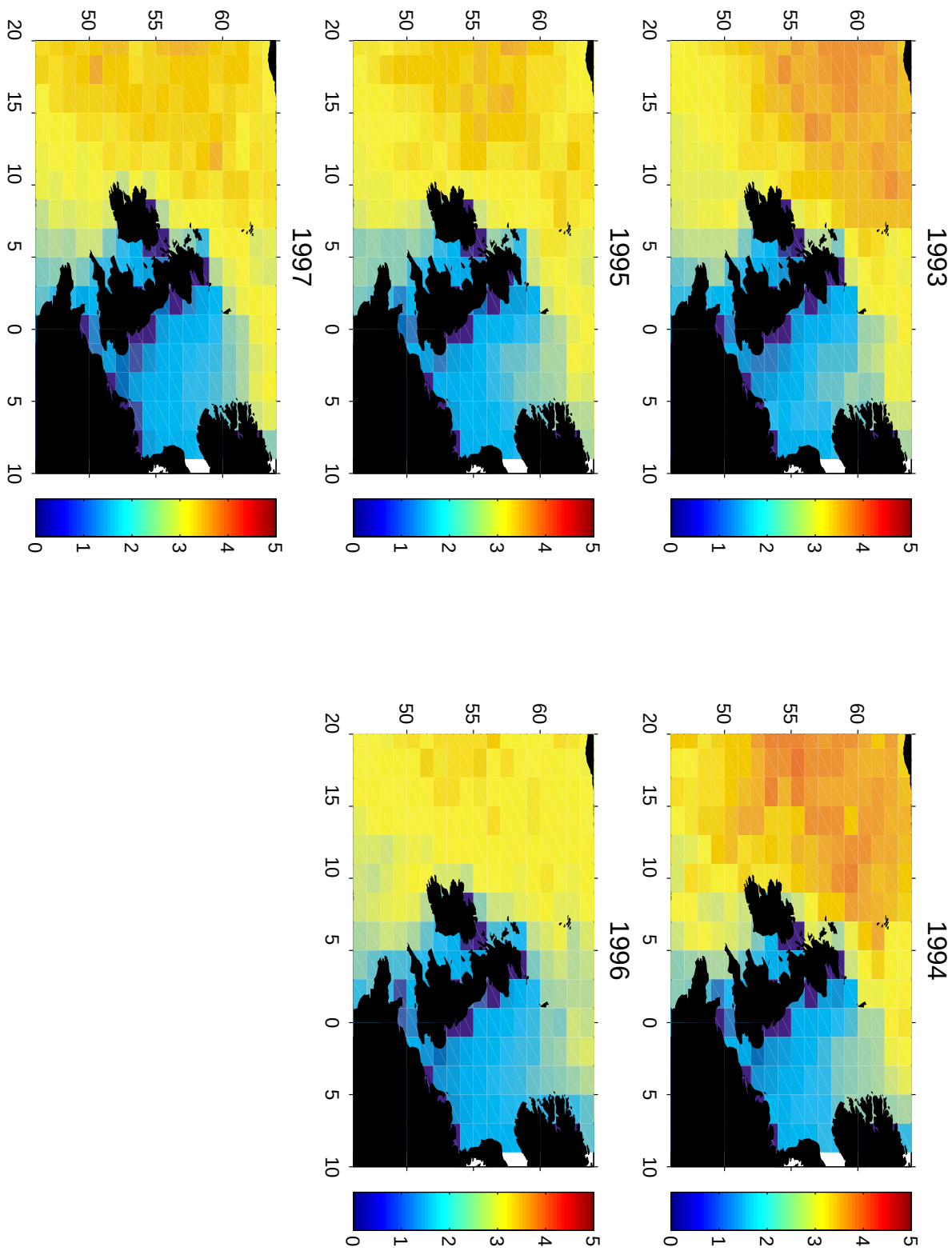
.Figure E3. Seasonal means of significant wave height. For the years 1993-97. In landscape orientation: Top left - winter (Dec, Jan, Feb), top right — spring (Mar, Apr, May), bottom left — summer (Jun, Jul, Aug), bottom right — autumn (Sep, Oct, Nov).



.Figure E4. Climatological monthly means of significant wave height. For the years 1993-97. In landscape orientation: Top left - January, top right — February, middle left — March, middle right April, bottom left — May, bottom right — June.



.Figure E5. Climatological monthly means of significant wave height. For the years 1993-97. In landscape orientation: Top left - July, top right — August, middle left — September, middle right October, bottom left — November , bottom right — December.



.Figure E6. Yearly means of significant wave height. In landscape orientation: Top left - 1993, top right — 1994, middle left — 1995, middle right 1996, bottom left — 1997.