Supplement

Eigenvectors maps of the drivers' principal component analyses.

Each map represents the correlation (eigenvectors) between each cell of the gridded regional climate data and the first two principal components (PC) of the principal component analyses (PCA) made on the regional climate parameters. It is more relevant for the correlated drivers (Fig. 4 in the main article) but all the maps are given. The color scale is specific to each map and represents the strength of the correlations from blue (lowest) to red (highest).

For example, the meridional wind PC2 was correlated to the coastal ecosystems PC1 (Figs. 3, 4b in the main article). The eigenvectors are higher for the Atlantic and Mediterranean Sea stations than for the English Channel stations meaning that the trend observed in Fig. 4b was more correlated to the Atlantic and Mediterranean Sea stations than to the English Channel stations.



Wind intensity PC1





Zonal wind PC1



Zonal wind PC2



Meridional wind PC1

Meridional wind PC2





Sea Level Pressure PC1



Sea Level Pressure PC2



Sea Surface Temperature PC1



Sea Surface Temperature PC2

4 60°N Eigenvectors (0.425, 0.450] 55°N -(0.450, 0.475] (0.475, 0.500] (0.500, 0.525] (0.525, 0.550] 50°N (0.550, 0.575] (0.575, 0.600] Latitude (0.600, 0.625] (0.625, 0.650] (0.650, 0.675] (0.675, 0.700] (0.700, 0.725] 40°N (0.725, 0.750] (0.750, 0.775] (0.775, 0.800] (0.800, 0.825] 35°N (0.825, 0.850] (0.850, 0.875] 30°N 5°W 0° 10°W 5°E 10°E Longitude

Mean Precipitation PC1

30 60°N Eigenvectors 55°N -(-0.8, -0.7] (-0.7, -0.6] (-0.6, -0.5] (-0.5, -0.4] 50°N• (-0.4, -0.3] (-0.3, -0.2] Latitude (-0.2, -0.1] (-0.1, 0.0] (0.0, 0.1] (0.1, 0.2] (0.2, 0.3] 40°N · (0.3, 0.4] ব্য Q (0.4, 0.5] (0.5, 0.6] (0.6, 0.7] 35°N -(0.7, 0.8] 30°N -0° 10°W 5°W 5°E 10°E Longitude

Mean Precipitation PC2