

**Table S4. Mantel tests at the county-level, excluding Sweden.**

	<b>Phase correlations</b>	
	Correlation	<i>p</i> -value
<i>Mantel tests</i>		
Population*	-0.30	0.04
Distance	-0.13	0.17
Humidity	0.13	0.19
Temperature	0.04	0.36
Region†	-0.69	0.0001
<i>partial Mantel tests</i>		
Population, adjusted for:		
Distance	-0.31	0.04
Humidity	-0.31	0.04
Temperature	-0.31	0.04
Region	0.24	0.07
Distance, adjusted for:		
Population	-0.15	0.13
Humidity	-0.03	0.40
Temperature	-0.21	0.045
Region	0.13	0.20
Humidity, adjusted for:		
Population	0.15	0.16
Distance	0.03	0.38
Temperature	0.17	0.12
Region	-0.15	0.17
Temperature, adjusted for:		
Population	0.06	0.31
Distance	-0.17	0.09
Humidity	-0.12	0.19
Region	-0.13	0.19
Region, adjusted for:		
Population	-0.68	0.0001
Distance	-0.69	0.0001
Humidity	-0.69	0.0001
Temperature	-0.70	0.0001

Mantel and partial Mantel tests using Spearman correlations to detect associations between the phase synchrony of Norwegian and Danish counties and a number of predictor variables (after excluding the Swedish data).

\* represents the product of population sizes for each municipality pair.

† binary variable indicating whether two counties are in the same country (1) or not (0).