**Table S1:** Correlation matrix of variables selected for species distribution model analysis. Variables are listed along the top and left side, with ρ-correlations for each variable pair given in the table. CTS = cumulative thermal stress;PAR = photosynthetically active radiation; CS = current speed; Ωarag = aragonite saturation state.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **CTS** | **CS maximum** | **Ωarag minimum** | **Salinity minimum** | **PAR minimum** | **PO4 maximum** |
| **CTS** | 1 | -0.42 | -0.49 | 0.26 | -0.45 | 0.16 |
| **CS maximum** | -0.42 | 1 | 0.32 | -0.32 | 0.35 | 0.13 |
| **Ωarag minimum** | -0.49 | 0.32 | 1 | 0.27 | 0.30 | -0.38 |
| **Salinity minimum** | 0.26 | -0.32 | 0.27 | 1 | -0.04 | -0.07 |
| **PAR minimum** | -0.45 | 0.35 | 0.30 | -0.04 | 1 | -0.12 |
| **PO4 maximum** | 0.16 | 0.13 | -0.38 | -0.07 | -0.12 | 1 |