Table S4. General linear mixed model results for diatom species over regions: Transpolar Drift (T), North of Svalbard (N) and Siberian Shelf-Slope (S), and ice types: First-year ice (FYI) and multiyear ice (MYI).The model estimates are given in log space for each model (standard deviation in parenthesis). The estimates are contrasted to the first element in Figure 3. See Table S3 for more detailed model statistics.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Region FYI | Region MYI | Dataset FYI | Dataset MYI | Decade FYI | Decade MYI | Ice type |
| Intercept | 1.90 \*\*\* | 2.82 \*\*\* | 2.13 \*\*\* | 2.72 \*\*\* | 1.90 \*\*\* | 2.95 \*\*\* | 2.46 \*\*\* |
|  | (0.36)  | (0.07)  | (0.16)  | (0.05)  | (0.36)  | (0.07)  | (0.05)  |
| Region T | 0.30  | -0.37 \*\*  |   |   |   |   |   |
|  | (0.40)  | (0.12)  |   |   |   |   |   |
| Region N | 0.60  | 0.35 \*\*  |   |   |   |   |   |
|  | (0.37)  | (0.13)  |   |   |   |   |   |
| Region S |   | 0.05  |   |   |   |   |   |
|  |   | (0.12)  |   |   |   |   |   |
| Dataset ICE |   |   | 0.44  |   |   |   |   |
|  |   |   | (0.30)  |   |   |   |   |
| Dataset N-ICE |   |   | 0.36 \*  | 0.44 \*\*\* |   |   |   |
|  |   |   | (0.17)  | (0.12)  |   |   |   |
| Decade 90s |   |   |   |   |   | -0.28 \*  |   |
|  |   |   |   |   |   | (0.11)  |   |
| Decade 00s |   |   |   |   | 0.37  | -0.66 \*\*\* |   |
|  |   |   |   |   | (0.42)  | (0.14)  |   |
| Decade 10s |   |   |   |   | 0.59  | 0.09  |   |
|  |   |   |   |   | (0.37)  | (0.11)  |   |
| Ice type MYI |   |   |   |   |   |   | 0.33 \*\*\* |
|  |   |   |   |   |   |   | (0.07)  |
| N | 117  | 98  | 117  | 98  | 117  | 98  | 215  |
| N (id) |  117  |  98  |  117  |  98  |  117  |  98  |  215  |
| AIC | 795.29  | 684.11  | 795.73  | 691.55  | 796.73  | 680.07  | 1498.49  |
| BIC | 806.34  | 697.03  | 806.78  | 699.31  | 807.78  | 693.00  | 1508.60  |
| R2 (fixed) |   |   |   |   |   |   |   |
| R2 (total) |   |   |   |   |   |   |   |
|  \*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05. |